

CONVAIR Weekly Log

January 12, 1981

Published by the Convair Division of General Dynamics



Here are the people and behind them the panels. In alphabetical order: R. Brenner, Jr., V. Brenner, J. Butera, G. Catton, C. Davis, C. Dunbar, T. Dunez, C. Grayham, L. Jarvis, J. Lair, B. Larson, R. Lewis, T. Mallory, O. Manning, A. Marsden, K. Maxfield, S. McCullough, A. McFarland, R. Moore, B. Mundt, E. Norton, B. O'Brian, P. Paszko, R. Perkins, D. Punnell, R. Ratliff, G. Rhea, W. Scrabski, R. Sillanpa, M. Smith, J. Stout, R. Store, W. Walker, B. Wesson, D. Wheelborg, J. Wiest, and W. Wilson.

Space Shuttle Team Really Comes Through

Faced with a tight deadline and critical production requirements, a combined team of Convair engineers and personnel from operations and inspection successfully completed four composite panels for the space shuttle mid-fuselage five days ahead of schedule.

The panels were produced as part of the effort by our space shuttle program office to reduce mid-fuselage weight and thus increase payload weight, at the same time maintaining structural strength and integrity. Using composite honeycomb structure to make these panels resulted in a weight reduction of 300 pounds. They will be used in the mid-fuselage for the space shuttle orbiter vehicle designated OV-103.

Not the least of the team's problems was getting the work done before January 1, at which time the autoclave essential for bonding operations was to be shut down for overhaul. They also had to meet three major production challenges: numerical control tapes were updated without a proofing run; because of a machine loading problem, the panels had to be transferred from Plant 19 to the Onsrud machine at Lindbergh Field; and major obstacles in panel cleaning and priming had to be rapidly overcome.

The team did all that. Members not only beat the schedule, but the four panels encountered the fewest machining and bonding problems of any parts manufactured for the mid-fuselage. That's really above and beyond, gang. Nice going.

Dr. Buchanan to Speak at CMA Dinner Jan. 22

Dr. Buchanan will talk about the present and future of the company in his State of the Division address at the Convair Management Association dinner meeting Thursday evening, January 22, in the Mission Bay Hilton. Tickets are \$9 for members and \$12 for nonmembers. Dinner will be at 6:30, the program at 7:30. Among prizes in the Scholarship Fund drawing will be trips for two, dinners and brunches, and a two-week membership in Perfect Racquet.

Saturn-Voyager Is Topic at AIAA Dinner Jan. 15

Robert Steinbacher of the Jet Propulsion Laboratory will talk about the Saturn-Voyager 1 mission at the dinner meeting of the American Institute of Aeronautics and Astronautics San Diego section on January 15 at the Hanalei Hotel. He'll show slides and discuss information sent back by the spacecraft during the recent flyby. Cocktails will be at 6:30 and dinner at 7. The price is \$8 for members and \$10 for nonmembers. Reserve through January 13 with Rajan (265-6660), Terry (265-6075), or Santha (583-2031).

New Interplant Bus Schedule Effective Jan. 19

- Depart KM to LF via Corporate Court and Plant 19: 7:00, 8:30, 10:00, 11:30, 1:00, 3:00.
- Depart LF to KM via Plant 19 and Corporate Court: 7:50, 9:20, 10:50, 12:20, 1:50, 3:50.
- Depart Plant 19 to LF: 7:25, 8:55, 10:25, 11:55, 1:25, 3:25.
- Depart Plant 19 to KM via Corporate Court: 7:55, 9:25, 10:55, 12:25, 1:55, 3:55.
- Depart Corporate Court to LF via Plant 19: 7:10, 8:40, 10:10, 11:40, 1:10, 3:10.
- Depart Corporate Court to KM: 8:15, 9:45, 11:15, 12:45, 2:15, 4:15 (arrive KM at 4:20).

The San Diego Blood Bank is urgently seeking donors. Call 296-6393 to make an appointment. The blood bank is open weekdays from 8:30 a.m. to 7 p.m. and on weekends from 8:30 a.m. to 3:30 p.m. The address is 440 Upas Street, in the Hillcrest area.

Corporate Stock Plan Values for November

Here are the unit values in dollars for the General Dynamics savings and stock investment plan as of November 1980.

Salaried	1978	1979	1980
Government bonds	\$ 2.0607	\$ 2.2579	\$ 2.4446
Diversified portfolio	1.2643	1.5903	2.2015
Fixed income	—	1.0393	1.1448

Hourly

Government bonds	2.0598	2.2579	2.4424
Diversified portfolio	1.2928	1.6272	2.2462

GD stock \$14.9500* \$23.7100* \$40.3750

*Reflects 2½ for 1 stock split of February 1979 and 2 for 1 stock split of November 1980.

Lindbergh Field Salvage Yard Sale on Jan. 17

The salvage yard at Lindbergh Field will hold a sale for all employees on Saturday, January 17, from 8 a.m. to noon. Use the Washington Street entrance. You'll find drafting-table arms, desks, and chairs, along with building materials. Remember to bring some company ID and to wear sturdy shoes. All sales are cash and carry.

6:45 a.m.-3:40 p.m. Bus Pool to LF Expands

Several seats are available in the bus pool that runs from El Cajon to Lindbergh Field and Plant 19 now that a new, larger, and more comfortable bus has been added. The bus leaves the El Cajon K-Mart store at 6:10 a.m. and stops at LF gates 1 and 2 and Plant 19 gate 23, delivering all passengers before 6:45 a.m. The return trip starts from LF at 3:40 p.m., stops at Plant 19, and arrives at El Cajon around 4:10 p.m.

With the savings in gas money, less private vehicle mileage, and no traffic problems, bus-pool passengers come out way ahead. The usual cost is \$1.50 per day, or \$15.00 for a two-week period. To sign up or for more information, call Bruce Smith at 579-5236.

7:30 a.m.-4:15 p.m. Van Pool to KM Seeks Riders

Riders are needed for a van pool serving the 7:30 a.m. to 4:15 p.m. shift. The van pool picks up and drops passengers in El Cajon at East Main and Madison, Parkway Plaza, and Grossmont Center. Estimated cost is about \$2 a day. Call Carl Wannamaker at KM 3838.

YOUR SON OR DAUGHTER MAY QUALIFY

CMA Scholarship Applications Are Now Available

Application forms for the Convair Management Association scholarship program are now available. Here are the eligibility requirements in brief: applicants must be high school seniors graduating this June or recent graduates; applicants must be in the upper third of their class; a parent or legal guardian must work at Convair or the Western Data Systems Center at the time of application. The scholarship program is open to qualified students of all employees, and membership in CMA is not a requirement. Deadline for submitting applications is March 31.

Forms can be picked up at the following locations or call KM 2256.

LF—Educational Services, building 16

KM—Educational Services, building 17

Ex-Kaiser Plan Members: Ignore Premium Notice

Employees who transferred from Kaiser to the Greater San Diego Health Plan or Self-Funded Health Plan effective January 1, 1981, may receive a premium due notice from Kaiser. Ignore the notice, since Kaiser assumes that an individual leaving a group program may wish conversion to private coverage and automatically bills the individual.

Effective Writing Course Begins Jan. 21

All employees are eligible to sign up for a four-week course in effective writing that begins on January 21. The instructor will be Doc Deane. Classes will be held on four consecutive Wednesdays at Kearny Mesa in the building 5 mockup conference room. Enrollment is limited to 30. Sponsored by the Convair Management Association, the course is \$3 for members and \$6 for nonmembers; \$3 will be refunded when you complete the course. To enroll, call Jan at LF 8525.

Register for After-Hours Classes

You may register for any of the following in-plant, after-hours classes sponsored by the San Diego Community Colleges by calling Educational Services at KM 2236 or LF 8564.

Course	Day	Plant
Tool Design	Mon & Wed	LF
Intro to Supervision	Mon	LF
Management & Organization	Tue	LF
Instructor Training for Supvr	Mon	KM
Beginning Shorthand	Tue & Thurs	KM
Shorthand Lab	Wed	KM
Principles of Economics	Wed	KM
Occupational Spanish	Thurs	KM

From the CRA Clubhouse

Attend SmokeEnders Jan. 13 or 15. A brand new SmokeEnders clinic begins with two separate meetings: at KM on January 13 at 11 a.m. or noon in room C, building 5; at LF on January 14, at 11 a.m. or noon in the building 14 auditorium.

Andy Williams Open at a Discount. CRA has these ticket bargains: \$10 Gold Tournament tickets are \$7. Season tickets are marked down from \$55 to \$25.

Clippers-Hawks Tickets at Half Price. Sit in a \$7 seat for \$3.50 as you watch the Clippers shave the Atlanta Hawks in the Sports Arena the evening of January 14. Get tickets at CRA (KM 1111) or from Jim Pate (KM 1940).

Song and Dance Part of Film on the Handicapped

"A Different Approach" satirizes advertising approaches, uses song, dance, and animation to puncture misconceptions about employing the handicapped. An Academy Award nominee, the film features cameo appearances by celebrities.

At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Employment

For the week ending December 28, employment was 8,304.

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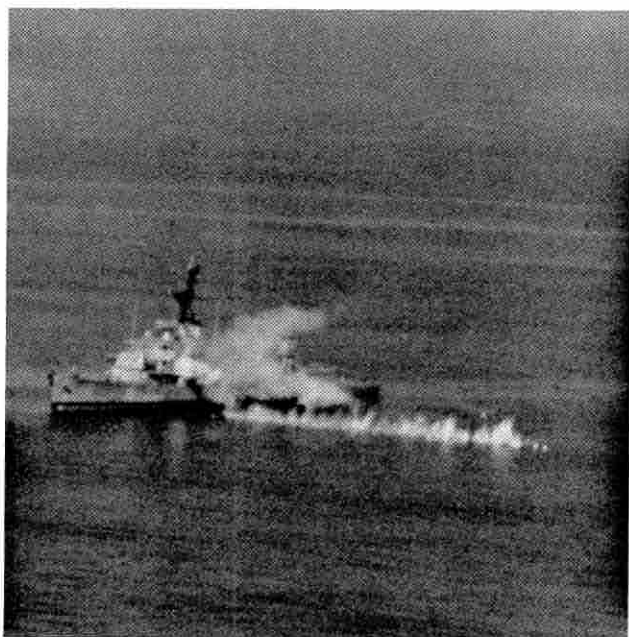
Tomahawk Scores Direct Hit on Target Ship

A U.S. Navy/General Dynamics Tomahawk cruise missile equipped with an inert warhead scored a direct hit on a target ship during an operational test January 15 off the coast of California.

The test marked the first time that a Tomahawk anti-ship missile terminated flight with target impact. In previous antiship Tomahawk tests, the missiles overflew the target hulks on simulated target strikes.

The missile was launched from the submarine USS *Guitarro* while submerged in open water. It was the first of four antiship development test/operational test missions that will be conducted by the U.S. Navy, using U.S. Navy personnel.

Seconds after being ejected from one of the submarine's torpedo tubes, the Tomahawk broached the surface of the water, successfully transitioned from boost to cruise flight, and flew a fully guided antiship mission. All major flight objectives were accomplished as the missile successfully demonstrated its long-range, over-the-horizon capability to search for, locate, and attack a target ship at sea.



CONCERNING CENTAUR-IN-SHUTTLE

Remarks by NASA Chief at Budget Hearings

The following remarks are excerpted from the testimony of Dr. Robert Frosch, administrator of the National Aeronautics and Space Administration, during fiscal 1982 budget hearings on January 15 in Washington.

"We have been carrying out a concentrated study of space shuttle upper stages for two and one-half months now. This study was initiated when we became concerned with the continued rapid escalation of estimated costs for the three-stage interim upper stage [IUS].

"To outline the situation now, there is a very low probability that we can prepare a three-stage IUS in time for Galileo orbiter and probe launches to Jupiter in 1984, as previously scheduled. Therefore, the budget that the President is sending to Congress provides funding for that mission in 1985. The three-stage IUS, if it could be developed by 1985 along the lines we have been following, could not accomplish the Galileo mission because of the higher energy requirements in that year.

"We have also been working with the industry to look at the possibility of incorporating the Centaur stage into the shuttle, an option that has been extensively studied and has frequently been proposed as an alternative to the three-stage IUS. I have concluded that within the 1981 and 1982 resources that the budget would provide, we could begin modifications of the Centaur, provisions for integrating it with the shuttle, and the relatively minor changes to launch facilities at the Cape [Canaveral] so as to have that very powerful combination available for first launches in 1985.

"No other alternative upper stage is available on a reasonable schedule or with comparable costs. The shuttle/Centaur would satisfy our planetary mission needs and would offer both to commercial customers and to

national security interests a highly capable launch vehicle with growth potential. Therefore, NASA will expand discussions with the Air Force on the best means for providing upper stages to meet the needs of the nation in the second half of this decade and work with them to continue with development of the two-stage IUS, which both we and the Air Force are counting on for a number of critical missions.

"We will also make preparations with the General Dynamics Corporation to enable us to enter into a contract this spring for integration of the Centaur vehicle in the shuttle for the 1985 Galileo and international solar-polar mission launches.

"Of course, significant changes of this magnitude in our plans will be subject to confirmation as the Administration changes. Pending review of NASA's recommendations by the new Administration and the Congress, NASA will work with the Air Force to permit orderly implementation of the Space Transportation System and our respective programs."

Preretirement Seminars Scheduled Jan. 20, 29

A preretirement planning seminar for salaried employees will start on January 20 and one for hourly employees on January 29. Both seminars will meet for six consecutive Tuesday or Thursday evenings from 6:30 to 9:30 in the building 2 presentation room at Kearny Mesa.

Enrollment is limited and reservations are accepted on a first-come, first-served basis. To register, call KM 1374. The San Diego Community College District is conducting the seminars, which are jointly sponsored by Educational Services and Employee Benefits. Spouses are encouraged to attend.

FLIP

Greater SD Health Plan Health-Appraisal Procedure

The popularity of the Greater San Diego Health Plan among area employees has overloaded primary care physicians with new patients requiring routine health-appraisal exams. The plan can more effectively provide this service if these exams are distributed throughout the year. The GSDHP therefore requests that members schedule routine health exams during their birthday month. If you need medical services, this procedure obviously does not apply.

MANY PRIZES TO BE AWARDED

Dr. Buchanan to Speak at CMA Dinner Jan. 22

Tomorrow is the last day you can buy tickets to the Convair Management Association dinner meeting this Thursday evening at the Mission Bay Hilton. Tickets are \$9 for members and \$12 for nonmembers. Dr. Buchanan will give a State of the Division address.

A trip to San Francisco (including PSA flight, lodging, and \$100 cash), weekend for two at the Mission Bay Hilton, portable radio, two-week Perfect Racquet membership, and a door prize of \$25 are among the prizes anyone can win in the Scholarship Fund drawing.

Call for Tech Papers on Computers in Aerospace

Tech papers in the areas of embedded systems technology, program management, and design and development of aerospace products, with the emphasis on computer-aided design and manufacturing, are solicited for Computers in Aerospace Conference III. The conference, which will be held in San Diego October 26-28, is being sponsored by the American Institute of Aeronautics and Astronautics, the Institute of Electrical and Electronics Engineers, and the National Aeronautics and Space Administration. For details, call Chuck Claysmith at KM 1431.

Pepperdine Business School in Area Jan. 22, 28

The School of Business & Management of Pepperdine University will hold two open houses to acquaint everyone interested with the school's MBA and BS in Management programs. These get-togethers will enable Pepperdine to see if there's enough interest in these new programs to warrant holding classes in the San Diego area. The open house on January 22 will be held in the San Diego County Board of Instruction building on Kearny Mesa and on January 28 at Palomar Community College. On either day, come at 5 p.m., when program representatives will be on hand. For more information, call Don Davis at KM 2312 or a Pepperdine representative at (714) 739-2506.

Management Course Begins Feb. 2 at Kearny

A management course titled Introduction to Supervision will be held on Mondays, February 2 through March 16, from 4:30 to 6:30 p.m., at Kearny Mesa in mockup conference room A.

The course is open to all employees. The fee is \$3 for members of the Convair Management Association, which is sponsoring the course, and \$6 for nonmembers. Register with Shirley Grames at KM 3456. For further information, call Ken Biccum at KM 3212 or Jack Beckman at KM 2991. This course is the first of ten seminars that will be presented over the next two years.

Employment

For the week ending January 11, employment was 8,222.

Free Income Tax Seminar on Feb. 10

All employees and guests are invited to attend an income tax seminar Tuesday, February 10, from 5 to 8 p.m., in the Kearny Mesa dining room. It will be conducted by John Ciminelli, district manager of H&R Block. He will talk about such topics as getting tax records together, dividends and interest, business expenses, deductions, and residential energy credit, and will answer questions. For reservations, call Linda Barron at 1525.

Our Private Party at Disneyland is on Mar. 14

All General Dynamics families and their friends are invited to our annual party at Disneyland from 8:30 p.m. to 1:30 a.m. on Saturday, March 14. The price of \$6.75 per person (children under two are admitted free) includes unlimited use of all attractions except shooting galleries, plus bands, shows, and parking.

Tickets go on sale today (sorry, no payroll deduction this year) and here's where to get them:

Kearny Mesa

CRA Clubhouse	Missile Park	KM 1111
Shirley Nowlin	Bldg 3	KM 1163
Barbara Cranmer	Bldg 4	KM 2869
Phyllis Miller	Bldg 5	KM 1729
Kim Wold	Trailer 3	KM 1354

Lindbergh Field

Dee Buckland	Bldg 16 (Tue, Thu, Fri)	LF 8317
Phyllis Harris	Bldg 3	LF 8189
Yvonne Craig	Bldg 5 lobby	LF 6854
Jody Manual	Bldg 4	LF 8142
Vivian Scroggins	Bldg 53	LF 8058

Plant 19

Ruth Lindsay	Bldg 2	LF 8213
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Tour the Main Post Office on Jan. 21

See how your letters are sorted, postmarked, and handled during a Convair Management Association-sponsored tour of the post office at 2535 Midway Drive. The tour is on Wednesday, January 21, at 6 p.m., and participation is limited to the first 30 people who sign up. Call Rob Evanson at KM 1243 or Betty Ford at LF 8518.

From the CRA

Free Rock a'Robics Class. Attend today at 4:30 p.m. or January 20 at 9:30 a.m., 4:30 or 5:25 p.m. The new, five-week session begins on January 21. The fee is \$18. Call Pam Koch at 276-3559.

Scuba Divers Meet Tomorrow. Everyone interested is invited to attend the Scuba Divers Club meeting at 4:30 p.m., January 20, in room C at the clubhouse.

Caribbean Cruise Party Jan. 21. Free refreshments, free everything, when you attend the party where you'll learn all about a Sitmar Lines Caribbean cruise. In the clubhouse at 7:30 on Wednesday evening.

Caribbean "Hummingbird" Voyage in Noon Movie

A colorful travelog is the film this week as the 40-foot ketch *Hummingbird* cruises to the islands of Trinidad and Tobago.

At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

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Patents Issued to Convair Inventors

Patents have recently been issued to several Convair inventors. Earl Christian and Ron Blunck received patent 4,237,612 for a fastener-grip length-measuring system now being used in DC-10 manufacturing. Gary Krumweide received patent 4,239,564 for a method of coating a structure with a uniform foam layer.

Make Stock Plan Changes This Month

February is the month for you to make changes in the corporate savings and stock investment plan (SSIP). Stop by Employee Benefits. Changes you make in your investment option or contribution percentage will become effective on April 1, 1981.

You are eligible for the SSIP after you have one year of cumulative service. If you now meet this requirement or wish to clarify your eligibility, call Employee Benefits at KM 2559.

Convair's Integrated Logistic Support Trains Pros

The Society of Logistic Engineers gives two nationwide exams each year for those who want to be Certified Professional Logisticians (CPLs). The eight-hour exam covers systems management, system design and development, acquisition and production support, and distribution and customer support. Passing the exam requires years of experience and intensive training. Not everyone makes it:

Exam Given	Engineers Taking Exam	Number Passing
11-79	139	38
5-80	132	28 (2 from Convair)
11-80	120	35 (3 from Convair)

Sandy Rosenthal of Integrated Logistic Support (ILS) organized Convair's first Logistics Technology and Management class in 1979. Of this class, two ILS members passed: Jack Cooper of Logistics Engineering and Bob Schussler of Product Support. These two organized the next class, given in 1980. The second exam taken by Convair-trained personnel saw three ILS members pass: Anthony Nauyokas of Technical Publications, Jim Silva and Peter Sterling of Logistic Engineering.

Many of Convair's supervisors and technical personnel contributed their time to teach classes in their specialties, and each added something valuable from personal experience that you can't find in textbooks.

Attention, Users of Cost Center Bulletins

Two new Cost Center bulletins recently issued have many changes. The new issue for Sheet Metal (Dept. 001) is revision 42. The new issue for Machine Shop (Dept. 015) is revision 44. The new issues are on yellow paper, so if the ones you're using are on white, they're probably out of date. To get the latest bulletins, or to add your department to distribution, call Industrial Engineering at LF 5777.



Rear Adm. Locke discusses recent Tomahawk successes with Jim Karam (center) and Bernie Kuchta of our Cruise Missile Program Office staff.

Rear Adm. Locke Hosts Convair Tomahawk Team

Rear Adm. Walter M. Locke, Joint Cruise Missiles Project Office program director, hosted a reception in the Kearny Mesa dining room for Tomahawk program employees during his visit to Convair on January 23. In a brief address, Adm. Locke lauded the efforts of Convair's Tomahawk team members and their contributions to the successful flights of the previous week, when the submarine-launched Tomahawk moved ahead into the Navy's Development Test/Operational Test program. January 23 was the date of the third successful submarine launch of a Tomahawk antiship missile in a span of eight days.

Configuration Management at Convair

When aerospace products for the government became highly complex about 30 years ago, the government discovered that traditional methods of product management did not work well. Delivered products often did not meet contract requirements and drawings did not show the product's true configuration. The government also found that it had approved poorly evaluated changes that jeopardized mission success or raised costs beyond available funds. Interface problems with products supplied by other contractors created last-minute changes that undermined the performance and reliability of the total system or mission.

To cope with these grave problems, the Air Force sparked development of a new system to improve contractor performance. The Navy, Army, NASA, and industry supported the Air Force in this effort, and a new management discipline was born: configuration management. Configuration management is a discipline for ensuring that the configuration of a product is accurately documented, that changes to the approved configuration are evaluated and approved, and that records

are maintained to document the status of changes against a customer-approved configuration.

Convair played a key role in helping the government develop this new discipline. Although configuration management is a separate function within the company, it requires the active participation of almost all functions within Convair.

The Configuration Management Group at Convair is the driver in carrying out the company's configuration management program. The group oversees and coordinates configuration management activities within the company and provides the specialists, procedures, and training programs needed to ensure that government and private-contractor configuration management requirements are met. It's a big job. Just ask Henry Hyman (KM 6363) or Jim Remiker (KM 3782).

They Retired in January

Name	Last Department	Years Served
Jack R. Bachman	Contracts	26
Clifford A. Banks	Blueprint Files	38
Stephen M. Benn	ETR—NASA Launch	23
Lloyd C. Bennett, Jr.	LVP Test Planning	28
Raymond L. Benson	Weight Analysis	40
Arthur L. Borer	Material Control	27
Ernest A. Brook, Jr.	Estimating	29
Richard A. Clark	Manufacturing Engineering	25
Phyllis I. Clifford	Avionics	20
Clarence E. Davis	Construction Operations	34
Robert F. Donnelly	Corporate	22
David T. Farrelly	Lab—Research	25
Floyd M. French	Tomahawk	24
John E. Gillette	Structural Analysis	28
Robert I. Gordon	Lab—Graphics	24
James B. Griffin	Final Assembly	25
Barney M. Hall, Jr.	Purchasing—Raw Material	28
Earline B. Hearn	Performance Analysis	37
Helen F. Holland	Marketing	26
James E. Horne	Preliminary Design	24
Richard W. Keehn	BGM-109 PGM Planning	30
Mary M. La Coste	Cataloging Raw Material	24
Edward F. Madden	Machine Shop	27
Travis L. Maloy	Structural & Fluid Design	42
John R. Martinez	Aircraft Business Mgmt	30
Lyle R. McClain	Systems Technology	27
Louis C. Nardi	Drafting	30
Arthur L. Oldrich, Jr.	Operations Test Engineering	24
Joyce A. Posytan	Maintenance	21
Frank Reavell	LVP Electrical	25
Jack F. Ridley	Processing	40
Arthur Sambrano, Sr.	Dispatcher	33
John M. Somers, Jr.	Scientific Research	28
Marjorie L. Steveson	Management Statistician	23
George Tahan	Industrial Engr Methods	39
George H. Zoellner	Operations Forecasting	25

Our thanks for their contributions to Convair and best wishes for health and happiness in the future go to each of them.

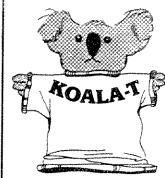
'Women and Health' Lectures Start Feb. 17

Talks on how women can lose weight, become fit, and stay that way will be held in the CRA clubhouse from 7 to 9 p.m. on February 17 and 24 and on March 3. The series is free. Reserve at KM 1111.

Scuba Diving Class Today

The Delta Divers Club is offering a class in scuba diving from 4:30 to 6:30 p.m. on February 16. For further information, call Rich at KM 3388.

Koala-T-Corner



One person can make the difference.
You are that person. If travellers are used in your work, remember to check the traveller for completeness and buyoff of preceding operations. You can't do a good job unless previous operations are correct and complete. Report any discrepancies in the traveller to your supervisor.
You can make the difference.

FIRM NEW DATE SET: FEB. 24

Apologies to All Who Showed Up for Tax Seminar

The powers that be (or should have been) extend apologies to the nearly 100 employees who showed up last Tuesday evening for a tax seminar only to find the gate closed and no speaker when they finally were admitted. The person in charge had indeed made all arrangements, then suddenly found it impossible to tell the speaker or guards when the seminar would be held.

The free seminar has been rescheduled for Tuesday, February 24. Other particulars are the same: 5 to 8 p.m. in the Kearny Mesa dining room, with complimentary coffee and donuts. The speaker will be John Ciminelli, district manager of H&R Block. If you signed up before, you needn't again. If you haven't signed up but plan to attend, call Linda Barron at KM 1525. The seminar is sponsored by the NMA Convair Chapter.

Wheelers, Dealers Sought for Vegas Night Mar. 25

The NMA Convair Chapter is seeking members to deal blackjack, run the wheel of fortune, chuckaluck, and other games at the Las Vegas Night get-together on Wednesday evening, March 25. If you'd like to volunteer, get your ticket and then call Don Early at KM 8656.

Ticket Supply Shrinking for Disneyland Mar. 14

As the tempo of sales picks up, there's a dwindling supply of tickets left for the General Dynamics private party at Disneyland on Saturday, March 14. The event, sponsored by the NMA Convair Chapter, will be from 8:30 in the evening until 1 the next morning. Tickets are \$6.75 each and you must get them here. For information, call the CRA at KM 1111.

GD's B-58 Bomber Sets Records in Noon Movie

Back in the early 1960s, the Strategic Air Command/Fort Worth Division B-58 *Hustler* medium bomber set 14 world records and won five major trophies. Jimmie Stewart hosts as "Champion of Champions" tracks the plane in history-making flights, including the "Lindy Hop" (New York to Paris in three hours and 20 minutes) and flying 1,302 mph for 30 minutes to win the Bleriot trophy.

At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

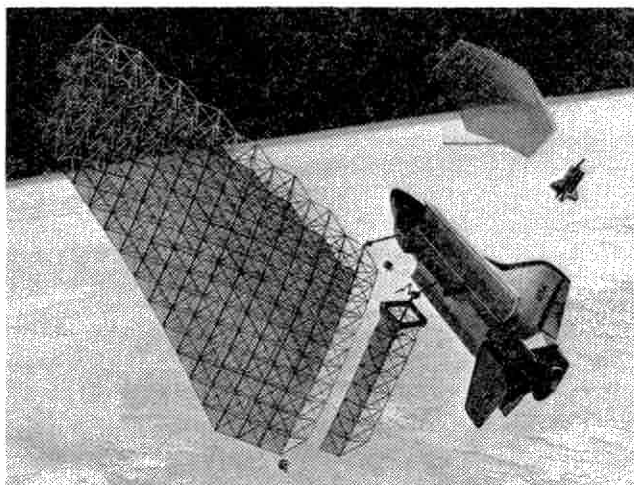
Employment

For the week ending February 8, employment was 7,814.

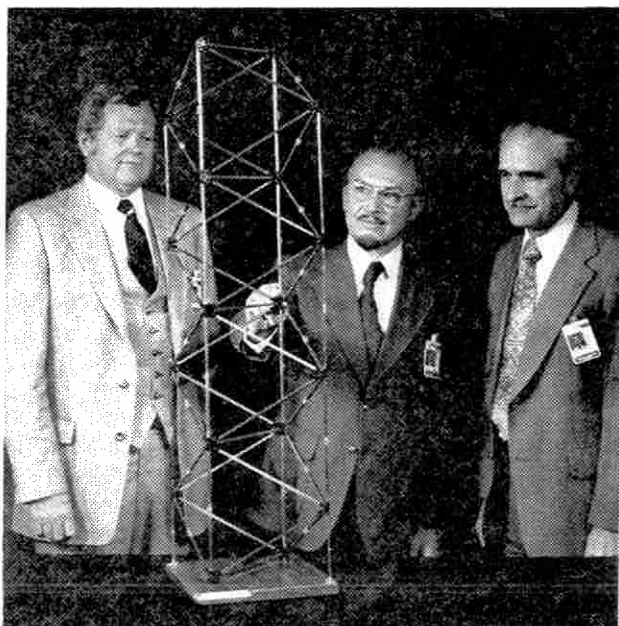
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Large-scale truss beams will be individually deployed from the space shuttle orbiter and then joined side by side to form rigid foundation structures, such as this 100-meter-diameter orbiting antenna reflector.



Bill Rector (left), vice president - Space Programs, Desmond Vaughan, study manager, and Russ Thomas, manager of NASA programs, inspect a working model of the deployable space beam.

New Progress in Space Construction Technology

The Modular Reflector Concepts Study, just completed for the NASA Langley Research Center, has brought Convair's pioneering space structures endeavors a step closer to practical reality, according to Study Manager Desmond Vaughan of Advanced Design (Dept. 673), who holds the basic patents on the beam structure that unfolds mechanically.

This deployable beam version of the earlier concept for a parabolic expandable truss antenna provides an elemental structural "building block" for step-by-step construction in space. Deployed in orbit from the space shuttle orbiter, such beams may be joined to form integrated structures of varied shapes and of unlimited size. Typical applications are the geostationary communications platform, space radar reflectors, optical metering structures, and solar energy collectors. All these projects are currently under study at Convair; they are potential major programs for the coming decades.

Atlas/Centaur Launches 4th COMSTAR Satellite

Atlas/Centaur vehicle 42 launched a COMSTAR satellite toward geosynchronous orbit (stationary above the earth) on February 21. The launch, fourth and last in a series, was made from the Eastern Test Range. The satellite will join the first three COMSTARs already operating in synchronous orbit. Each satellite is designed for the simultaneous relay of up to 18,000 two-way telephone conversations and has an operational life span of seven years.

The COMSTAR spacecraft were developed for the American Telephone & Telegraph Company to provide domestic telecommunications (chiefly long-distance telephone) service within the United States. COMSAT (Communication Satellite Corporation) General owns the satellites, but leases their entire in-orbit capacity to the American Telephone & Telegraph Company.

Manufacturing Technology Engineers Honored

An appreciation luncheon was held recently to honor 51 engineers in Manufacturing Technology (Dept. 470) for their achievements in 1980. During the year, each of them had received an award for a cost reduction proposal, patent, EXCEL recognition, or employee suggestion, or had presented a technical paper. The cost reduction proposals submitted by this group in 1980 totaled \$15.4 million, which was 22.5 percent of Convair's total — a significant accomplishment.

Andy Robertson, manager of Manufacturing Technology, presented many of the awards during the luncheon. Congratulations to all; you can be proud of a job well done.

KM Switchboard to Close at 6 p.m.

Starting on Monday, March 9, the switchboard at Kearny Mesa will close at 6 p.m., instead of 7 p.m. If you have questions, call Estelle Starnes at KM 1213.

Ramona-Poway-KM Van Pool Riders Sought

A fifteen-seater van needs riders for a route from Ramona through Poway to Kearny Mesa. Leave Ramona at 6:30 a.m., arrive Poway about 6:50, and Kearny Mesa at 7:15. Leave Kearny Mesa at 4:25 p.m. For details, call Karl Taylor at LF 8261 or 789-1418 after 5:30 p.m.

7:30 a.m.-4:15 p.m. Van Pool to KM Seeks Riders
Riders are needed for a van pool serving the 7:30 a.m. to 4:15 p.m. shift. The pool picks up and drops passengers in El Cajon at East Main and Madison, Parkway Plaza, and Grossmont Center. Estimated cost is about \$2 a day. Call Carl Wannamaker at KM 3838.

Here's How to Get Money-Saving Vanpool Service
Gas prices are making a great leap forward again. Reduce your transportation costs by using available vanpool and carpool services. For details, call 237-7665.

Be in Blood Drive, Get Chargers T-Shirt
A special five-day blood drive will be held March 16 and 17 at Kearny Mesa, March 18 and 19 at Lindbergh Field, and March 20 at Plant 19. Qualified donors are urged to call the Medical Department (KM 1309) this week to make an appointment. Donors will receive a stenciled Charger Power T-shirt and they'll be supporting a vital need of our community.

Openings in CPR Classes for Supervisors
A few openings are still left in the two cardiopulmonary resuscitation classes that have been reserved for supervisors in March and April. At least one supervisor from each department should sign up. For details and registration, call Marion at LF 5667 on Mondays, Wednesdays, and Fridays and at KM 1778 on Tuesdays and Thursdays.

Software Engineering Conference Mar. 9-12
The Fifth International Conference on Software Engineering will be held March 9-12 in the Town & Country Hotel. The conference is sponsored by the Institute of Electrical and Electronic Engineers. Three preconference tutorials for software professionals will be held on Monday. A special tutorial on Wednesday entitled "An Intelligent Layman's Guide to Computers" is a good crash course for professionals outside the field or spouses of computer people who want to understand their partners' careers. The conference proper, from Tuesday through Thursday, will present keynote speakers, parallel sessions on state-of-the-art software engineering, and panel discussions.

Registration for tutorials or the conference is \$80 for IEEE members and \$100 for nonmembers. Registration for one tutorial plus the conference is \$145 for members and \$165 for nonmembers. For more information, call Bob Fritz at KM 1793.

ROOM FOR MORE

'Las Vegas Night' Dealer Training Set
NMA Convair Chapter members who have volunteered to serve as game operators during Las Vegas Night on March 25 will receive expert instruction on how to wheel and deal at 5 p.m., before the action starts. Don Early says he can use more volunteers. Call him at KM 8656.

KOALA-T KORNER



Here's a quality tip from the Boeing 767 Strut Program:

Be sure to fit parts properly to prevent preloading. Preloading occurs when load-bearing structures are fastened under stress, thus creating a potential for failure.

Proper fitup = long structural life

Disneyland Update

There's a new source of Disneyland tickets at Lindbergh Field: Jane Keaton (LF 8186) in the Safety Office, building 16. When you buy tickets from Jane or the other sellers, please try to have exact change. You'll save time. Remember that tickets are \$6.75 per person (children two and under get in free). Round-trip bus tickets are \$8.50 each.

Admission tickets are good for unlimited use of more than 50 Disneyland attractions, plus a wide variety of entertainment. The NMA Convair Chapter is sponsoring this General Dynamics private party at Disneyland, on Saturday, March 14, from 8:30 p.m. to 1:30 a.m.

From the CRA

Clippers-Spurs Game at Half Price. Regular \$7 tickets are \$3.50 for San Diego Clippers-San Antonio Spurs basketball on March 14 in the Sports Arena. Get tickets from the clubhouse (KM 1111) or Jim Pate (KM 1940).

Back-in-Action is Back. Back-in-Action, a nonvigorous exercise program for prevention and care of low back pain, is back. The Health-Fitness Center is offering the six-week class on Tuesdays and Thursdays at 5 p.m. starting March 17. Get details from Sheryl or Marc at KM 1111.

See 'To Fly' at Space Theater Mar. 22. A special showing for General Dynamics employees of the widely acclaimed film "To Fly" will be presented in the Reuben Fleet Space Theater on Sunday, March 22, at 6:15 p.m. Tickets are \$1.50 (the usual admission is \$3.50). Get them from the LF salesbooth (LF 8317), clubhouse (KM 1111), or Jim Pate (KM 1940).

Bermuda Golf Tour Preview Mar. 26. The CRA Golf Club will give a presentation on March 26 at 7 p.m. in the Missile Park picnic pavilion about the club's golf tour this year to Bermuda.

See GM Fisher Bodies Made in Noon Film

"The Innovators" takes you from clay models through production of Fisher bodies for General Motors cars.

At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Employment

For the week ending February 22, employment was 7,782.

Professionals are people who never stop learning about their specialties, never turn down an opportunity to further extend the boundaries of their knowledge. If there's no one available to teach them more than they know, they will find ways to teach themselves. And they will look to other fields for new ways of looking at their own specialties.

CONVAIR Weekly Log

March 16, 1981

Published by the Convair Division of General Dynamics



Ron Johnson (center) receives an award from the American Heart Association for his life-saving skills. Presenting it are Don Tibbs (right) and Joe Harrison, Convair fireman and CPR instructor.

CPR Comes Through for Convair Employee

Don Tibbs won't forget last August 12. He was in building 2 at Plant 19, where he works in Experimental (031). At 9:07 a.m., his heart stopped beating. That began the countdown. There were only six minutes until brain damage began. Ron Johnson of the same department had been trained in cardiopulmonary resuscitation when he worked at National Steel. He started CPR on Don and kept his breathing and circulation going until Convair firemen arrived. They continued CPR until Don was under the care of the Mercy Hospital emergency room staff.

Tibbs is back at work and doing very well, thanks to Ron Johnson and the firemen. Would he have been as fortunate if he had been in your work area? Or maybe you've had CPR training.

CPR Class at Lindbergh on Mar. 19, 26

You still have time to enroll in the CPR course that will be given at Lindbergh Field on March 19 and 26 from 5 to 9 p.m. The course is open to all employees. Joe Harrison will be the instructor. Call Marion on Monday, Wednesday, or Friday at LF 5667 and on Tuesday or Thursday at KM 1778.

How to Get Faster Service on PAs

You may be having unnecessary delays on receiving material ordered on procurement authorizations (form 5300) if they are sent directly to the Procurement Department. Except for departments specifically authorized by Material Control to deliver PAs directly to the Procurement Document Control Center (PDCC), all departments processing PAs should forward them to Material Control, MZ 81-2230, on the third floor of building 5 at Lindbergh Field. (See Material Instruction Manual 2-400, paragraph 3.2.)



Here are the members of the Machine Shop's First Circle. Seated, left to right: Ed Beard, Fidel Rodrigues, Jamal Shirwani, Arnold Grunner, Connie Robinson, Morgan Christian, Steve Stephens, Armando Morales, Ron Nelson, and Ray Castanen. Standing: Ricardo Nava, Sue Mack (facilitator), Bill Dickey (supervisor), and Charlie Sanford (supervisor).

Convair Implements Quality Circles

Names like First Circle and Motivation Crew suggest a new beginning, enthusiasm, and teamwork. These are the names of Convair's two quality circles — in the Machine Shop (Dept. 015) and Receiving Inspection (Dept. 358), respectively.

Quality circles are built on worker participation and involvement. The people actually doing the work contribute to improving the job their department performs and the system it uses. Each quality circle is a group of about ten employees who work in the same area. With their supervisor as leader, members meet once a week to identify, analyze, and solve work-related problems. Projects and recommendations are discussed with management in periodic presentations.

Convair's Quality Circle Program, which is being coordinated by Sue Mack, is in the pilot phase. A third circle, in Cruise Missile Avionics (Dept. 050), is slated to begin next month. Five quality circles will be established in 1981, and then about 20 circles will be added every year. The goal is to place circles in a wide variety of locations, in both production and nonproduction areas.

'Discussions for Learning' Starts Apr. 8

The "Discussions for Learning" professional management course provides practical experience in leading group discussions and develops a good foundation for new instructors of NMA courses. It will be held at Lindbergh Field in the PIC room, third floor of building 5, on Wednesday evenings, April 8, 15, 29, and May 6. The instructor will be John Barrons. Sponsored by the NMA Convair Chapter, the course costs \$4 for members and \$8 for nonmembers. \$4 is refunded on course completion.

Attendance is limited to fifteen. To enroll, call Diana Byrd (LF 8072) by March 31.

FLIP

Corporate Stock Plan Values for January

Here are the unit values in dollars for the General Dynamics savings and stock investment plan for January:

Salaried	1979	1980	1981
Government bonds	\$ 2.0961	\$ 2.3043	\$ 2.5154
Diversified portfolio	1.3380	1.7329	2.0544
Fixed income	—	1.0559	1.1653
Hourly			
Government bonds	2.0953	2.3036	2.5127
Diversified portfolio	1.3686	1.7688	2.0992
GD stock	\$16.8000*	\$40.1900*	\$34.3750

*Reflects 2½ for 1 stock split of February 1979 and 2 for 1 stock split of November 1980.

Join 'EEO for Supervisors' Course at LF

You still have time to enter "Common-Sense EEO for Supervisors," a six-week course on the essentials of equal opportunity employment open to anyone interested in the subject. It meets on Wednesdays from 4:30 to 7:30 p.m. at Lindbergh Field in the building 14 auditorium. Simply attend the class on March 18 or call KM 2255 or LF 8564.

Keith King to Be Guest Celeb at Blood Drive

You may be one of the lucky ones who meets Charger linebacker Keith King while you're donating blood in the drive this week. Periodically throughout the drive, he'll be on hand to say hello and sign autographs. Here are the donation sites:

Place	Time
Kearny Mesa Bldg. 6, Fire Station	Mon. & Tues., March 16 & 17
Lindbergh Field Bldg. 2, Classroom 1	Wed. & Thurs., March 18 & 19
AF Plant 19 Outside Bldg. 4, First Aid Station	Friday, March 20

For donating, you'll receive a yellow Charger Power T-shirt. If you wish, you may credit your donation of blood to the Convair retiree reserve fund on an "as needed" basis. To sign up for the drive, call KM 1309.

Tour Van Camp Sea Food Plant Mar. 18

Come see a fish cannery during a tour of the Van Camp Sea Food Company at 1025 East Harbor Drive. The tour, sponsored by the NMA Convair Chapter, will be at 5 p.m. on Wednesday, March 18. Participation is limited to the first 30 people who sign up. Reserve with Rob Evanson at KM 1243 or Betty Ford at LF 8518.

Join Lady Luck at 'Las Vegas Night' Mar. 25

Blackjack, craps, and roulette are among the games of chance you can play at "Las Vegas Night" on Wednesday, March 25, in the San Diego Hotel. A buffet and 50 units of playing chips are included in the price of \$8 for the event, sponsored by the NMA Convair Chapter. The price is the same for members and nonmembers and all have an equal chance to win the valuable prizes in the drawing that will follow gaming from 7 to 9 p.m. Things get under way with a cocktail hour at 5 p.m. For details and tickets, see any chapter booster.

KOALA-T KORNER

How to Bury a Good Idea

- It won't work.
- We've always done it that way.
- We're doing fine without it.
- We can't afford it.
- We're not quite ready for it.
- I'm too busy to make suggestions.



Weekend Trips to Las Vegas, Catalina This Spring

Reservation deadlines are approaching for these weekend trips sponsored by the NMA Convair Chapter: **Las Vegas, Apr. 10-12.** \$165 per couple includes roundtrip by chartered bus (prizes and refreshments en route) and accommodations at the Stardust Hotel (in lower floor rooms). Call Sue at KM 6591 by March 20.

Catalina, May 8-10. \$210 per couple includes roundtrip bus from San Diego to boat, roundtrip boat from mainland to island, accommodations at the Pavilion Lodge on Avalon Bay, island tour, and glass-bottom boat tour. Call Bill at KM 2855 by March 31.

From the CRA

Softball Teams Organize Mar. 16. All General Dynamics employees and dependents are eligible to join the league of men's and women's softball teams now being organized. Attend the meeting on March 16 at 6 p.m. in the TV room of the CRA clubhouse.

Back-in-Action Begins Mar. 17. Back-in-Action, a non-vigorous exercise program to relieve lower back pain, begins tomorrow. The class will meet at 5 p.m. on Tuesdays and Thursdays for six weeks. Call Sheryl or Marc in the Health-Fitness Center (KM 1111).

Coed Slo-Pitch Program Mar. 17. An organizational meeting for the General Dynamics coed slo-pitch softball program will be held on Tuesday, March 17, in room C at the CRA clubhouse. All returning 1980 summer league teams should be represented. If you're not already on a team, call KM 1111 and leave your name and extension so that you can be contacted when teams are formed.

Scandinavia Tour Preview Mar. 18. Films, slides, and a discussion will be part of the presentation about CRA Travel's tour of Norway, Denmark, and Sweden that departs on June 26. CRA clubhouse, Wednesday, March 18, 7:30 p.m.

NO SHOWINGS AT LF

Noon Film Says: Hit a Pillow, Not Car's Windshield

There's not much heat behind putting air bags into cars now, but this week's noon movie makes a good case for their use. "Crashes That Need Not Kill" includes crash tests and interviews with survivors saved by air bags.

At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, showings are cancelled this week because there's no projectionist.

Employment

For the week ending March 8, employment was 7,735.

Professionals are people who know their chosen specialty so well that they know which of its rules can be broken—and when, under what circumstances, and with what result. They know both the strengths and the limitations of their specialty and respect both.

CONVAIR Weekly Log

March 23, 1981

Published by the Convair Division of General Dynamics

What's Happening on the DC-10/KC-10 Fuselage Programs?

The Bluesheet asked Roy Gilmour, Convair's DC-10/KC-10 program director, for his view on the status of these programs. Here are his comments:

DC-10 sales are slow now because of the poor economic conditions being experienced by U.S. and major world airlines. Airline traffic and profitability are very sensitive to the status of the economy in general and to fuel prices. Both factors are now hurting the airline business. This situation will probably continue through the rest of 1981, but I expect these conditions to ease in 1982. As a result, I think we will see DC-10 orders pick up in 1982.

The outlook for the KC-10 program is very good. The aircraft fills a basic need of the U.S. Air Force for additional tanker/cargo aircraft capability to support potential military force deployments that could be required in various areas of the world. KC-10 quantities are increasing in DoD budgets. The fiscal-year 1980 budget included four KC-10s. We are now working on the six KC-10 aircraft authorized in the FY 1981 budget, with delivery of these fuselages starting in August 1981. The FY 1982 budget, as amended by the Reagan administration, includes eight KC-10s.

The KC-10 program has also provided an important buffer to the production impact of slow commercial DC-10 sales. The four KC-10 fuselages just completed and the six now in work have provided a base of work that has substantially reduced the production shock experienced in the last period of slow DC-10 sales. As those of you who were here in 1976 will remember, that sales slowdown resulted in a quick series of major rate reductions, temporary furloughs, and the delivery of just nine fuselages in 1976.

As a result of the DC-10 slowdown, we now expect to deliver around 22 fuselages in both 1981 and 1982, with deliveries increasing significantly in 1983. This compares to 38 fuselages delivered in 1980.

It is important that all individuals associated with the DC-10 programs recognize and respond to the need to continue performance improvements over the next year.



This is particularly important to the KC-10 program. On KC-10 fuselages 3 through 6 just completed, the parts shortages on the assembly line got out of hand and had a significant detrimental impact on assembly performance. Once parts shortages were reduced, good assembly performance improvement resulted. Parts are now being fabricated for the upcoming six KC-10 fuselages, with the first assembly operations starting this month. It is very important that we avoid the performance impact suffered because of parts shortages on the last group of KC-10s.

To sum up:

- Current slow DC-10 sales are temporary and will begin to recover in 1982 (just as they recovered from 1976).
- The KC-10 outlook is strong, and the KC-10 adds strength to the DC-10 program.
- The current reduced production rate requires special attention by all to continue performance improvements on both the DC-10 and KC-10 programs.
- Parts support for assembly of the upcoming six KC-10s is crucial.
- We will be producing DC-10 and KC-10 fuselages at least into the mid-1980s.

START APR. 16, 30

CPR Courses for Employees, Families, Friends

Now you, everyone in your home, and your neighbors can all learn the life-saving techniques of cardiopulmonary resuscitation in two courses that will be taught by Joe Harrison of Convair's Fire Department. Sign up now, though, because each session has only 40 spaces. To get CPR certification, you must attend both classes in either session. Refreshments will be served.

Session 3

April 16 & 23, 5-9 p.m., LF, building 14, classrooms, 6,7

Session 4

April 30 & May 7, 5-9 p.m., KM, employee dining room

To enroll, call Marion MWF at LF 5667 and TTh at KM 1778. More courses will be offered later this year by the sponsor, the NMA Convair Chapter.

Convair Host for San Diego EEO Council

Convair was the host company for the March meeting of the Greater San Diego Equal Opportunity Council. More than 50 EEO administrators and personnel specialists attended. They represented 60 government contractors in the San Diego industrial community. The charter of the San Diego EEO Council is to provide a forum for the continuing education of personnel specialists in the requirements of Equal Employment Opportunity.

FLIP

The March program was a panel discussion about ways to make it easier for the handicapped and disabled to be employed. Panel members were Julie Erdman, Risk Management Department, City of San Diego; Joe Firvaldsky, Veterans Administration; and Steve Howard, Univance Vocational Rehabilitation Service.

Travel Office Now Open All Day

The Travel Office (KM 3232) in building 2 at Kearny Mesa will now remain open during the noon hour, providing full service from 7:30 a.m. to 4:15 p.m.

Learn Calligraphy

Rachael Sider of Convair's Art & Editorial Department will teach an eight-week course in calligraphy starting April 8. When you have mastered the tools and techniques she will teach, you will be able to execute a basic italic hand with a broad nib. The course will meet on Wednesday evenings from 4:30 to 6 at Kearny Mesa in building 17, room 2. The course is limited to 30 students. Call Dorothy at KM 1374.

Class by Specialist in Back Care Starts Mar. 24

Mary Ann O'Connor, an experienced specialist in back care and methods for preventing pain in the lower back, is the instructor for Back-in-Action. This nonvigorous exercise program consists of relaxation, stretching, and strengthening techniques.

Back-in-Action starts on March 24 (not March 17, as first announced). Classes meet in the Health-Fitness Center on Tuesdays and Thursdays from 5 to 6 p.m. through April 30. Fee for the six-week course is \$35. Call Sheryl or Marc at KM 1111.

Utilities Top One Mil in Feb. Our total utilities bill for February was \$1,019,998. Electricity cost \$780,997, natural gas \$207,826, and water \$31,195. You can help reduce our bill by reporting all utility leaks (compressed air, steam, and water) to Maintenance Dispatch (KM 1130 and LF 8575) and returning leaky hoses to the Tool Crib (KM 2073 and LF 8287) for replacement.

Canteen Is Helping Us Lower Costs. Canteen of San Diego, the vending machine operator at Convair, has disconnected display lamps on their machines throughout our plants to save energy. Their help will reduce our energy bill \$15,000 per year. Remember that unlighted machines are not broken . . . they are saving money.

From the CRA

Discount on Drive-ins. Discounted tickets for the Harbor and Frontier drive-ins are \$2 each from the CRA or LF salesbooths.

'Sesame Street Live' Tickets. \$7.50 tickets are \$5.50 from CRA for the 4:30 p.m. performance of "Sesame Street Live" on April 5 in the Sports Arena.

Shape-Up Class Begins Apr. 6. Shape-Up is for people who are out of shape and want to start an exercise-running program. The Health-Fitness Center class meets in Missile Park MWF at 4:30 p.m. for seven weeks. The fee is \$40. Call Sheryl or Marc at KM 1111.

Professionals are teachers. First, they're good enough at what they do to have something to teach. Second, they are people in fields from whom others want to learn. Third, they are secure enough in their professionalism to believe that they can teach others without creating competitive threats to themselves.

KOALA-T KORNER

Following the planning is critical.

It is a step-by-step process for doing each job. When changes are necessary, notify your supervisor, who in turn will ask representatives of the Planning Department to approve the change. Recently, one modification to the planning process, which appeared to save time, resulted in damage to surrounding areas of a part — and 33 pieces were scrapped.

Be sure that all departments approve planning changes. Be Quality Conscious.



SAFETY SPOTLIGHT



"Would never wear a seat belt — 'Too confining,' he'd say."

Drive carefully — Wear your seat belt.
Safety on the road is a part of your job security!

Noon Movie Details Forging Processes, Products

A good film for people interested in manufacturing technology, "Forging: The Pivotal Industry" shows how forgings are made, what the latest processes are, and why the designer plays a key role in the forging industry.

At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Employment

For the week ending March 15, employment was 7,727.

CONVAIR Weekly Log

April 6, 1981

Published by the Convair Division of General Dynamics

OMNIMIL CENTER IN OPERATION**Machining Facilities Get Major Boost**

As part of a capital facilities expansion program that is adding new muscle to Convair's manufacturing capabilities, 19 machine tools were installed at Plant 19 last year to support our DC-10/KC-10, Boeing 767 strut, and cruise missile programs. This year, three more machines will be installed at Plant 19. This total of 22 modern machine tools represents a corporate investment of more than \$24 million to meet forecast business.

Twenty-one of the 22 machines operate by computerized numerical control (CNC), using computer programs jointly developed by Convair CAD/CAM (computer-aided design and manufacturing) and Western Data Systems Center personnel. Sixteen of the CNC machines are three-, four-, and five-axis machining centers, each of which can do milling, drilling, boring, and tapping.

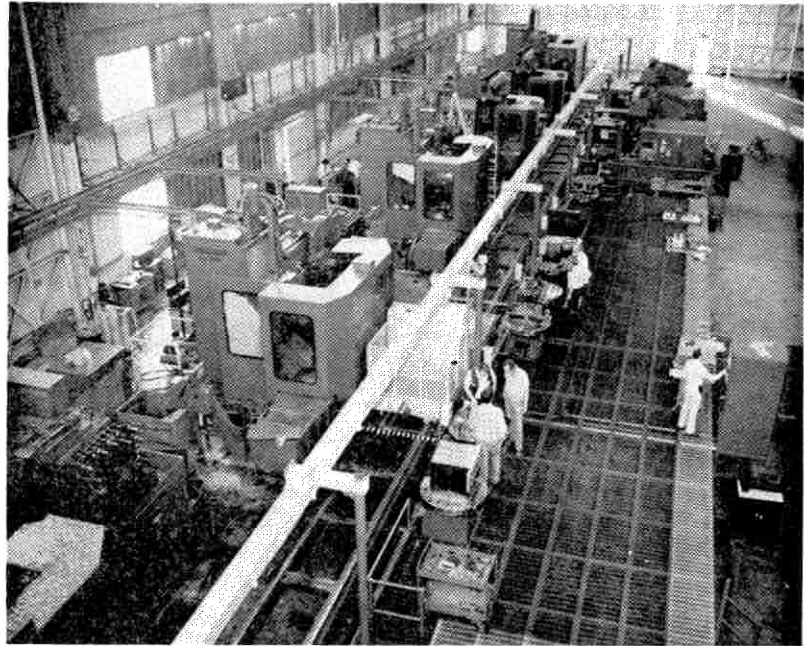
Eight of the larger CNC machines are Omnimil models that form our new Omnimil manufacturing system (OMS). One of only three such systems in the country, the OMS is now the main manufacturing facility for the Boeing 767 strut program and is also producing bulkheads and body sections for our cruise missile program. The system can be expanded in the future to meet higher production rates.

Playing key roles in the complex task of planning, installing, checking out, and activating these new facilities are the people of Facilities Planning, Industrial Engineering, Plant Services, Production Control, and Manufacturing Engineering, along with CAD/CAM and WDSC. Other new manufacturing facilities will be described in later Bluesheets.

Tomahawk in 1st Sub-Launch Land-Attack Flight

Tomahawk T50 successfully completed its first submarine-launched conventional land-attack test flight on March 28. The missile was launched from the submerged submarine *Guitarro* in the Pacific Missile Test Center Range at Pt. Mugu, Calif., and ended its mission about 300 miles away at the Tonopah Test Range, Nellis Air Force Base, Nev.

Once the Tomahawk left the water and transitioned to cruise flight, it navigated a complex mission over water, flew over land to the target area, flew a fully guided conventional land-attack mission over pre-programmed routes inside Nellis, carried out several simulated attack passes on a ground target, and ended its flight by deploying a recovery parachute. The missile will be refurbished for reuse in later tests.



Here is the new Omnimil manufacturing system at Plant 19: the eight Omnimil machines (six left and two right of the trolley rail running diagonally through the photo), the shuttle car on the tracks under the rail (center), the eight parts load/unload stations (paralleling the trolley rail to the right), and the line controller station (center, extreme right). The line controller operates the shuttle car, which services the load/unload stations. The car unloads a finished part from the machine and returns it to a station, at the same time loading the next unfinished part into the machine.

This was the 61st flight in the Tomahawk flight test program (the 71st AGM/BGM-109 flight).

Convair's Tomahawk Team accepted a difficult challenge in February 1980 to design, build, and have the conventional land-attack missile ready for operational service in January 1982. The successful flight test of T50 is a major milestone in reaching this objective. By working together toward a common goal, sometimes at considerable individual inconvenience, we have substantially increased the strength and potential of the Tomahawk program.

NASA/Industry Centaur Team Honored

Every year, the National Space Club selects a firm or firms responsible during the preceding year for an outstanding contribution in the missile, aircraft, and space field. The winner receives the Nelson P. Jackson Aerospace award as a symbol of that contribution. The 1981 recipient is the NASA/Industry Centaur team. Its members are the General Dynamics Convair Division, Honeywell, NASA Lewis Research Center, Pratt & Whitney, and Teledyne.

General Dynamics President Oliver Boileau accepted the award, on behalf of all team members, at the Na-

FLIP

tional Space Club Awards Dinner in Washington, D.C., on March 27. Also attending were Dr. Buchanan, Convair general manager; Bill Rector, vice president - Space Programs; Howard Bonesteel, Atlas/Centaur program director; and Bill Roberts, Space Marketing director.

The award citation reads, "For continuing excellence in the design, fabrication, and flight of Centaur high-energy upper stages." Speaking of the honor, Bonesteel commented, "This award was really won by the dedicated and competent people in all Convair departments who produced the hardware and software and who have the knowledge that allowed Centaur to achieve its outstanding record."

Corporate Stock Plan Values for February

Here are the unit values in dollars for the corporate savings and stock investment plan as of the end of February.

Salaried	1979	1980	1981
Government bonds	\$ 2.1107	\$ 2.3134	\$ 2.5356
Diversified portfolio	1.2943	1.7238	2.0783
Fixed income	—	1.0634	1.1746
Hourly			
Government bonds	2.1102	2.3124	2.5329
Diversified portfolio	1.3235	1.7591	2.1237
GD stock	\$15.1250*	\$36.1250*	\$33.7500

*Reflects 2½-for-1 stock split of February 1979 and 2-for-1 stock split of November 1980.



Breakfast of Champions

Above are the recent champs in the years-at-Convair category. They've just been honored at a breakfast hosted by Dr. Buchanan, who presented each with a service award. In alphabetical order:

	Years' Service
Virgil Akers	40
George Armstrong	40
Frank Biscak	40
Bill Espinosa	40
Gil Gilstrap	35
Clyde Good	40
Chuck Holland	40
Monty Montgomery	40
Marv Ramsey	40
Jim Shiller	35
Eddie Stelmach	40
Bob Trout	40
Hewlett Whisman	40

Present to honor the group along with Dr. Buchanan were division staff representatives Dan DaPra and Ed Squires; Ed attended on behalf of Sid Wilkinson.

From the CRA

Shape-Up Starts Apr. 6. Shape-Up classes meet MWF at 4:30 p.m. in the clubhouse, starting April 6. The course lasts seven weeks and the fee is \$40. Call KM 1111.

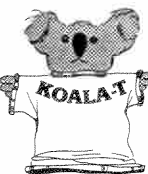
See Padres-LA Apr. 17. Tickets are \$5.50. Get them at the clubhouse or from Jim Pate (KM 1940).

KOALA-T KORNER

Is the package protecting the part?

Your help is needed to detect any errors in vendor packaging and handling. Recently, several flex-circuits for discrete decoder units had to be scrapped because of cracked lands (thin solder paths) at the pins. Poor packaging by the vendor had caused the problem. We spotted the error, and the vendor replaced the parts.

Help detect packaging errors!



KM Building 1 Leads in Lights Out at Lunch Time

The people of building 1 at Kearny Mesa are about to find out if peanut-butter-and-jelly sandwiches really do taste better in natural light. They're the first group to implement computer shutoff of lights during lunch.

This energy conservation action will save more than \$2,500 annually. Here's how it works. Occupants in every lighting control zone of the building agreed on a standard lunch period. Schedules were drawn up, and one is posted by each lighting control panel in the building. Starting April 8, a computer will turn off lights at the beginning of each lunch period. As lights are required during or after lunch, any person in an area can turn on the circuit serving that area.

Energy conservation monitors in other Convair buildings will be making up similar schedules to lower the lights when it's time for your lunch.

Chargers' Don Coryell at Sports Night Apr. 22

Don Coryell, head coach of the San Diego Chargers, will be the speaker for the NMA Convair Chapter's Sports Night at the Town & Country Hotel on Wednesday evening, April 22. After his talk, he'll conduct a question-and-answer session. All employees are invited.

Prizes in the Scholarship Fund drawing include a trip for two to Puerto Vallarta, vacations to Las Vegas, and a cruise for five aboard a luxury yacht. Tickets are \$10 for members and \$13 for nonmembers.

New Cassette Language Courses Available on Loan

New audio cassette courses in Spanish, French, and German are now available for loan to any Convair employee. The sets may be checked out from Lydia Currey at the KM library (KM 1075) or from Phil Rader in LF building 4 (LF 8128). There are 10 to 30 lessons in these Pimsleur programs, depending on the language, each of 30 to 60 minutes. Lesson leaflets and cassette players may also be borrowed. The cassettes are provided by the NMA Convair Chapter.

Noon Movie Tells the Story of Gold

This week's movie is one of the better films on a subject that's always in the news. Barry Sullivan narrates as "Man and His Gold" shows how the metal is mined and processed, how it is used in industry today, and why it remains the world's most generally valued substance.

At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Employment

For the week ending March 29, employment was 7,711.

CONVAIR Weekly Log

April 27, 1981

Published by the Convair Division of General Dynamics



Final assembly and checkout of production engine struts for the 767 at Lindbergh Field's building 4 assembly line.

767 Strut Production Gains Momentum

Three production shipsets of 767 engine struts have now been delivered as the pace quickens on this long-term production program. Intense startup efforts are beginning to wind down with the completion of major tooling and initial production and test units. The last Pratt & Whitney test unit, a fatigue strut, was delivered last week — one week ahead of schedule. The focus is now on achieving a smooth production flow of detail parts and assemblies. Significant progress is being made in that area and the "pipeline" is beginning to flow. Major spar assembly has started on the eighth production shipset, slightly ahead of schedule.

Rollout of the first 767 aircraft is scheduled for August 1981, with its initial flight in September. Our first struts were attached to the wing in January, right on schedule. The wing was joined to the fuselage in late March, four days ahead of schedule. The empennage is now being installed.

Sales of the new 767 aircraft continue to go well. Seventeen airline customers with 173 firm and 141 optional orders assure us a long, steady rate of production.

Greater San Diego Health Plan Participants — Note!

The April 1981 Greater San Diego Health Plan Viewsletter contains an article on participating GSDHP pharmacies and paid prescriptions.

Please note that Convair Division does not have the type of coverage arrangement with GSDHP mentioned in this article. The pharmacy plan available to Convair employees and their eligible dependents continues to be the Prescription Drug Plan, which includes all pharmacies at approximately 75% cost reimbursement and Mesa Medical contract pharmacy where you pay 25 cents per prescription.

Two from Convair Compete in Boston Marathon

Luis Ojeda of Guidance Analysis and Jack Smothers of Art & Editorial ran the Boston marathon on April 20 in 3:10:44 and 3:22:04, respectively. Both ran qualifying times in the Heart of San Diego marathon last October.



Lewis Research Center Director Visits Convair

Dr. John McCarthy, director of NASA's Lewis Research Center and our principal customer for Atlas/Centaur and Shuttle/Centaur, was here last Thursday for discussions on these programs and to meet with the Convair team that produces them. During the day, he toured Lindbergh Field, Plant 19, and Kearny Mesa, talking with employees in their work areas. His message was that we have done excellent work in supporting NASA and he sees continued opportunities for us in the future, both in expendable launch vehicles and in the shuttle programs.



Dr. Buchanan accepts the Chairman's Award for Excellence in Safety Performance in 1980 from James M. Beggs, General Dynamics Executive Vice President-Aerospace.

Convair Earns Corporation Safety Award

Employees and supervisors are to be commended for their safety performance resulting in earning the General Dynamics Corporation Chairman's Award for Excellence in Safety Performance in 1980. This is the seventh consecutive year Convair has compiled a safety record substantially better than the average for industry and conducted a comprehensive loss control program exceeding corporate standards. The receipt of this award reflects the importance you place on production with safety. I know you will continue to demonstrate this attitude in 1981.

*Dr. L.F. Buchanan
General Manager*

PLEASE NOTE

Posting of notices on company bulletin boards is a great way to sell your car, boat, bike, or other unwanted items, and continued use of the in-plant bulletins for such purposes is encouraged. Conducting personal business on company time, however, is against company policy. Please remember to list *only* your home telephone number when using the bulletin boards for free advertising.

Utilities Peak Between 11 A.M. and 6 P.M.

Our total utilities bill for March was \$985,355. Electricity cost \$763,288, natural gas \$189,134, and water \$32,933. This is a 53% increase over last March. You can help reduce costs by scheduling electrical loads outside of the on-peak period of 11 a.m. to 6 p.m. when electricity rates are most expensive. Electricity used during the on-peak period is 10% more expensive than the off-peak period (10 p.m. to 11 a.m.). Electricity used during the semi-peak period (6 p.m. to 10 p.m.) is 6% cheaper than during the on-peak period.

Those New Employee Benefits Hours . . .

The new hours at Employee Benefits offices for walk-in service are:

Kearny Mesa Office
Daily, Monday through Friday
7 a.m. to 7:30 a.m.
11 a.m. to 4 p.m.
Lindbergh Field
Tuesday, 12 p.m. to 4 p.m.
Thursday, 7 a.m. to 11 a.m.

When the Lindbergh Field office is closed, employees requiring group insurance claim forms can get them at Central Medical, Building 15. Questions may be directed to KM 2558, 2657, or 3194.

From the CRA

Club to Present Scuba Class. CRA Scuba Club will be offering a 5-week scuba class on Monday evenings. An organizational meeting will be held Monday, April 27 at 4:30 p.m. in the CRA TV room. For more information call Rich Sillanpa at KM 3388.

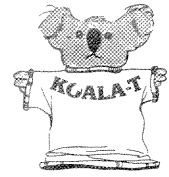
Missile Park Open for Summer. Missile Park is now open for the summer season. The concession stand and merry-go-round are open from 11 a.m. to 4 p.m. Softball fields may be reserved on weekends and volleyball, shuffleboard, and horseshoe equipment may also be checked out. Call Rick Wood at KM 1111 for more information.

Drive-In Theater Tickets at Discount. DeAnza theater tickets are available for the Frontier and Harbor drive-ins for \$2.00 and are good through December 1981.

Exercise Hours for Women. The new Health-Fitness Center facility now offers a light exercise area for women, providing privacy and equipment that meet the special needs of women. The light exercise area is open to women only on Mondays, Wednesdays, and Fridays

KOALA-T KORNER

A true craftsman knows whether the job was done right. Don't wait for an inspector to reject the work. If an error can be corrected, do so. If it can't be corrected, notify your supervisor.



Let's build a quality climate!

from 9 a.m. to 6 p.m. Come to the CRA clubhouse and see the new facility or for more information call Ann Williams at KM 1111.

CRA Table Tennis Club. The CRA Table Tennis Club is looking for new members. The club meets and plays table tennis every Tuesday evening from 6 to 8:30 p.m. The club has six professional-quality tables and promises challenging play for all skill levels from beginner to expert. All General Dynamics employees are welcome to join. Call Carl Thornton, LF 4305, or Charlie Kilgore, ED 6446, for more information.

Convair Hams at Boy Scout Fair. A group from the Convair Amateur Radio Club provided communications for officials at the annual Boy Scout Fair held at Del Mar on Saturday, April 25. This was the second year that club members participated in this event. Scout officials and their assigned radio operators rode around the fairgrounds in electric golf carts and were in constant contact by 2-meter FM handheld transceivers. As problems occurred, the appropriate official was notified by radio and prompt action was taken.

If you are interested in participating in similar weekend public service activities or if you know of a noncommercial activity that could use this volunteer communications service, please contact Bob Utschig, K6QJP, at 453-0148 or KM 3387.

1981 Ford Escort at Kearny Mesa This Week

The Ford Escort, grand prize in the Special Drawing to be held at our annual Convair Family Fun Day, will continue to be on display until picnic day, July 19. Currently at Kearny Mesa, the auto will appear at Plant 19 on May 8.

At Kearny Mesa this week, see the Escort at gate 2 (lobby) April 27-28; gate 1 April 29-30; gate 7 May 1-4; building 3 (SE) May 5-6; and gate 1 May 7. Tickets (\$1 donation each) may be purchased at the car during shift-change hours: 6:15-6:50 a.m. and 3:30-4:30 p.m.

Noon Movie Rescheduled From Last Week

Scheduling problems delayed the showing of last week's movie "Your Vision, Your Life" to this week. It's about the eye care profession and the problems it solves for individuals, especially children and older people.

At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Employment

For the week ending April 19, employment was 7,724.

CONVAIR Weekly Log

May 4, 1981

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These individuals in Systems Development (Dept. 644) recently received Certificates of Appreciation from Frank Thompson, Sea Launched Cruise Missile Program Director, who presented them on behalf of Rear Adm. Walter Locke, Joint Cruise Missiles Project Director. They were honored for their contributions to the successful first submarine launch of a Tomahawk land-attack conventional missile (T50:1).

First row (left to right): W.H. Lowe, Manager, Systems Development, K. Odom, K. Giddings, J. Abjanic, K. Nordeen, T. Wrywich, C. Hicks, and F. Thompson. Second row: P. Graf, B. Maffucci, B. Mace, G. Goldberg, R. Lejman, and M. Melen-drez. Missing were H. Obertreis and J. Tose.

Next 'Convairsations with Management' May 5, 7

This is a reminder for those who have signed with Monroe Jones for "Convairsations with Management." On Tuesday, May 5, Chuck Bohle will cover Finance Department objectives and operations from 4:30 to 5:30 p.m. at Lindbergh Field in the operations conference room, building 4. On Thursday, May 7, Augie Daddi will host discussions about Industrial Relations from 4:30 to 5:30 p.m. at Kearny Mesa in the mockup conference room, building 5. He will host the same topic at Lindbergh Field on Tuesday, May 12, in the operations conference room.

Child abuse is a prominent concern throughout the San Diego area. Child Abuse Awareness Week begins on May 3 and runs through May 9. An informative seminar on this preventable tragedy will be held at Alvarado Hospital from 7 to 9 p.m. on Wednesday, May 6. The 24-hour Child Protection Hot Line is 560-2191.

DC-10 Fuselage Delivered

DC-10 fuselage 373 was delivered on schedule to McDonnell Douglas on May 1.



NMA Scholarship Semifinalists to Be Announced

The 65 scholarship applications submitted to the NMA Convair Chapter are receiving their final review before the semifinalists are announced next week. According to Sue Mack, Scholarship Awards Director, making the selection this year is extremely difficult. Most candidates have outstanding records of accomplishment. She comments that it's not easy to compare various shades of excellence.

The scholarship candidates are being judged by a ten-member committee. Criteria include academic achievement, extracurricular activities, leadership responsibilities, and extraordinary recognition. All these factors are being seriously considered. Winners, therefore, will not necessarily be those with the highest grade point averages.

SAFETY SPOTLIGHT



"You show good initiative, Wilson — but poor judgement!"

Observe safety rules, wear authorized safety gear.
A positive attitude about safety is your best protection!

FLIP

Convairites Key People at SAWE Conference

Several Convair employees will make presentations and provide leadership this week in Dayton, Ohio, at the 40th Annual International Conference of the Society of Allied Weight Engineers (SAWE). Bob Johnston (Dept. 111-0) is responsible for the entire technical program for the 1,400-member society, serving as International Vice President-Technical Director. Paul Slysh of Western Data Systems Center is serving as Chairman of the Space Structures Technology session at the conference. Des Pengelley (Dept. 602-0) is presenting a paper in that session titled "Shuttle Optimized Space System Design." Slysh is also presenting a paper in the Space Systems and Metrology session titled "Synthesis and Optimization of Large Space Structures for Orbital Transfer."

Buddy Oman (Dept. 604-0) is serving as Chairman of the Computer Applications session at the SAWE conference. John Pieper (Dept. 604-0) and Tom Reed (Dept. 604-0) have prepared a paper for this session entitled "An Interactive Weight/Cost Analysis Program." Gary Balthrop (Dept. 111-0) will present a paper in the Engineering Management session titled "Effective Presentations — All You Wanted to Know But . . ." Balthrop also is coordinating conference vendor exhibits and demonstrations. John Fuller (Dept. 604-0) will participate as Awards Chairman for the SAWE.

From the CRA

Limber Up Begins May 19. A yoga-based new program at the Health-Fitness Center, Limber Up stresses stretching, flexibility, and relaxation techniques. The six-week class begins May 19 at 4:30 p.m. in the clubhouse. The fee is \$35. Call Sheryl or Mark at KM 1111.

Family Bargain Night for Padres. May 18 is Family Bargain Night at the Padres game. Tickets are available at half price at the CRA salesbooth for the May 18 game against the Montreal Expos.

Ironman Triathlon Show at CRA. On May 12 at 7:30 p.m. in the CRA auditorium there will be a presentation on the 1980 Ironman Triathlon. It will be given by Kurt Madden, seventh-place finisher. Along with Kurt will be Larry White, certified nutritionist and trainer, and Ron Morilla, bicyclist and nutritional consultant. Free to all General Dynamics employees.

Magic Mountain Excursion. CRA Travel has arranged a one-day trip to Magic Mountain on May 16. Call 278-1177 or KM 2898 for reservations.

Free Rock a'Robics Classes. Free introductory classes will be held in the CRA auditorium on Wednesday, May 13, at 4:30 p.m. and Thursday, May 14, at 9:30 a.m., and 4:30 and 5:30 p.m. Wear comfortable clothes and athletic shoes. For details, call Pam Koch at 276-3559 or KM 1111.

Seafood Sale. The Shrimp Peddler is offering General Dynamics employees a .30¢ per pound discount on seafood. The Shrimp Peddler will deliver shrimp, king crab, salmon, lobster, and other specialty seafoods right to the CRA parking lot. Order forms may be picked up at the CRA salesbooth.

KOALA-T KORNER A Success Story

Congratulations to the Convair team working on the 767 struts. The right-hand strut for Ship 3 was recently dispatched to the Boeing Thompson site in Seattle. Only 12 minor inspection "pickups" were found, as opposed to 90 plus on the first production strut. In fact, because of our outstanding quality, the final inspection has been shifted from inhouse to the customer's site. Not yet Zero Defects — but we are getting closer!



Get Away on 'Summertime Weekenders' in July

If you are looking for weekend activity in July, take a look at these trips, both sponsored by the NMA Convair Chapter:

Las Vegas Fourth of July Special. Leave CRA on Thursday, July 2, and return on Sunday, July 5. The price of \$215 per couple includes transportation and accommodations at Maxim's Hotel & Casino. Reserve with Sue Saussol (KM 1045) by May 29.

American River Rafting Trip. July 24-26 are the dates for this 20-mile white-water rafting adventure down the South Fork of the American River. The price of \$190 per person includes transportation to and from the river site (east of Sacramento), three meals on Saturday, and two on Sunday. May 15 is the deadline for Shirley Nowlin (KM 1163) to take your reservation and deposit of \$25.

Penick in Austin Healey Wins One at Riverside

"Judge" Penick of MRASM Configuration Management drove his 1954 Austin Healey to a third-place finish in the Historic Car Races at Riverside Raceway on April 25. "Judge" drove the vintage racer to and from the track and uses it almost daily for commuting to work. A movie and slides of the entire weekend of racing will be shown at the next Convair Sports Car Club meeting, the evening of May 13 in the CRA clubhouse.

11 A.M. SHOW AT KEARNY NEEDS PROJECTIONIST

Multinational Firm Is Topic of This Week's Movie

The worldwide operations of a leading pharmaceutical company, A.H. Robins, are the subject of "Company: A Look at an American Enterprise."

Our thanks go to Sig Anderson for the good job he did in handling the 11 a.m. showing at Kearny Mesa. Now that Sig will no longer be the projectionist for that show, there's an opening. If you're interested and can run a 16-mm projector, call Bob Gobrecht at KM 1525.

At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at noon only. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Employment

For the week ending April 26, employment was 7,730.

CONVAIR Weekly Log

May 11, 1981

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Quality Circles

PUTTING OUR HEADS TOGETHER

Quality Circles are here, and people are putting their heads together. A Quality Circle is a group of three to twelve volunteer employees and their supervisor, who meet one hour each week to solve work-related problems. Initially, they receive training in techniques of problem solving and analysis, data gathering, and group dynamics.

Convair is in the pilot phase of the program with three Circles in operation: Machine Shop Cost Center (07), Cruise Missile Avionics (050), and Receiving Inspection (358). These groups have already been working on such job improvements as obtaining adequate materials, improving communication, and enhancing the flow of material through a department.

According to program facilitator Sue Mack, the groups have identified many of the same problems even though the three Circles are located in different areas. Solutions are conveyed by members to management in management presentations that include the results of data collection in charts and graphs. The key to program success is a combination of management and member involvement and dedication. Implementation of Quality Circle projects is critical to the success of the effort. Two more Circles are expected to be added by December.

First Tomahawk TASMs Delivered to Navy

The first two Tomahawk antiship missiles (TASM) have been delivered to the Navy for operational evaluation. They will be launched from the submarine USS *Guitarro* later this year.

To the General Dynamics Convair Division:

On April 12, 1981, a new era in space began with the launch of the first reusable spacecraft. During its mission, in an outstanding exhibition of superior technology and good old American "know-how," the Columbia met or exceeded all mission objectives. Once again, America is leading the world into space.

Over the last decade, extraordinary effort has been required of the entire space shuttle team. The performance of your company in meeting the challenges we have faced has significantly enhanced our ability to meet this important national goal.

Please accept my personal congratulations for a job well done.

*Rockwell International Corporation
Space Transportation System
Development & Production Division
C.H. Feltz, President*

S.Z. Rubenstein, Vice President & Program Manager

Positional Tolerancing Reps for ANSI 14.5 Chosen

Departments throughout the division have selected their representatives for the newly formed Positional Tolerancing Committee. These people will be the nucleus of trained personnel responsible for learning and passing on positional tolerancing information in their respective groups per the requirements of the American National Standards Institute document ANSI 14.5. The committee will be chaired by Paul Southwell, chief drafter, Drafting (675).

The ANSI 14.5 method of dimensioning is a contractual requirement on the Tomahawk cruise missile program, as it is on most other current government contracts. It is also being used on commercial projects and at present is used at Convair on the Boeing 767 strut program. This modified method of dimensioning is a simplified standardization of dimensioning practices that eliminates the possibility of conflicting interpretation.

Over the last several years, instructions were given by an outside consultant on site here at Convair and by Southwell and Dick Nelsen, drafting supervisor. The Positional Tolerancing Committee's charter is to give the ANSI 14.5 effort firm direction and information on dimensioning.

If you are involved in this work, look over the

following list to find your department and representative. He will be your central point of contact for positional tolerancing information in your area.

Dept	Name	Ext
001	C.E. Scott	8650
015	G.D. Carroll	8519
241	M.A. Finta	6532
241	T.L. Leek	8114
310	F.J. Wiegand	8437
320	R.F. Frederick	8351
330	C.J. Coons	1133
340	J.V. Davis	8314
400	B.J. Griffin	8194
420	I. Raney	1788
430	D.A. Swanson	2301
439	M.D. Wolfe	8827
473	C.L. Holland	3171
642	R.W. Eichmann	1579
643	S.A. Kewley	3254
658	R.F. Shard	2889
671	L.E. Thomas	3462
672	T.J. Davis	2746
674	O.N. Pereira	8216
691	T. Nishida	2319
692	R.R. Fallar	3327
693	A.C. Taranto	8513
694	W.C. Clark	2150
691	F.F. Manning	1403

Shuttle/Centaur Proposal Submitted to NASA

We submitted our firm proposal for shuttle/Centaur development and production to the NASA Lewis Research Center on April 30. Based on a contract start of June 1, 1981, the proposal includes development and production of two wide-bodied Centaurs for the Galileo Mission (April 1985 launch) and the International Solar Polar Mission (May 1986 launch). Production would also include one set of airborne support equipment (in the shuttle) and required ground support equipment. Scheduled completion of this production is August 1984.

Vivien Steger Wins YWCA 'Tribute' Award

At the YWCA Tribute to Women and Industry (TWIN) luncheon last week, Vivien Steger, a senior research engineer in Materials & Process Engineering (631), was presented with the TWIN Honoree award. Convair, which had nominated Vivien for this recognition, received the TWIN Corporate award for providing opportunities that support women and their careers.

May Is Enrollment Period for Stock Investment Plan

During May, employees can change their investment options and contribution percentages for the savings and stock investment plan. Changes become effective on July 1 and will be reflected in the first full July paycheck.

Employees wishing to enroll are eligible after one year of cumulative service. Detailed plan information and enrollment and change forms are available at Employee Benefits. Questions may be directed to KM 2559.

"Brigadoon" Opens This Weekend in CRA Theater

The General Dynamics Performing Arts Company's production of Lerner and Loewe's "Brigadoon" begins its run with performances this Friday and Saturday at 8 p.m. and a matinee at 2 p.m. on Sunday. The musical will run through May 24. For tickets and further information, call Robert Wells at KM 1094 or the CRA at KM 1111.

KOALA-T KORNER Pencil Marks Can Damage Hardware

Attention engineers, production personnel, and supervisors: The graphite in ordinary pencils can corrode aluminum. Do not mark hardware with them. Special "pencils" are available for factory use.



Submit your quality tips to the Bluesheet, mail zone 11-1340.

They Retired in April

Our thanks and best wishes go to each of these employees who retired last month:

Name	Department	Years of Service
Rudolph M. Bogre	System Safety Engineering	2½
Gilbert C. Butler	Quality Assurance	24½
Francis R. Champeau	Plant Fabrication	3½
Herbert G. Craig	Tomahawk	27
Willard C. Downs	Transportation	22
Walter E. Duke	Eastern Test Range, Quality Assurance	24½
Robert D. Johnson	Quality Control	40½
Richard C. Lingley	Preliminary Design	41
Robert M. Meekin	Maintenance Operations	28
Willie K. Richeson	Plant Fabrication	34
Marion F. Sargent	Support Services	24
Harvey W. Sass	Electrical Hardware	25
Riley J. Sharp	DC-10 Bench Assembly	21
Irwin C. Vannatter	WDSC—Administration	17

Recent Visitors

Members of the Conventional Weapons Subpanel of the Technology Cooperation Program, representing Australia, Canada, the United Kingdom, and the United States, were here on April 27 for briefings on Convair, Electronics, and Pomona programs.

Robert Atkins, Member of Parliament from Great Britain, was here on April 27 for a briefing on Convair programs.

Congressman Robert W. Davis, of Michigan, a member of the House Armed Services Committee, was here on May 9 for briefings on our cruise missile programs.

From the CRA

For further information about any of these items, call KM 1111.

Tickets. You can get tickets for a one-day trip to Magic Mountain on May 20 by calling 278-1177 or KM 2898. CRA salesbooths and Jim Pate (KM 1940) have tickets at half price for the Padres-Montreal Expos game on May 18.

Film Shows NATO Maneuvers

"Four Days in Autumn" shows NATO troops in action as tanks, infantry, aircraft, and ships simulate land, air, and sea battles.

At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. (The new projectionist for the 11 a.m. screening is Peter Brown.) At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

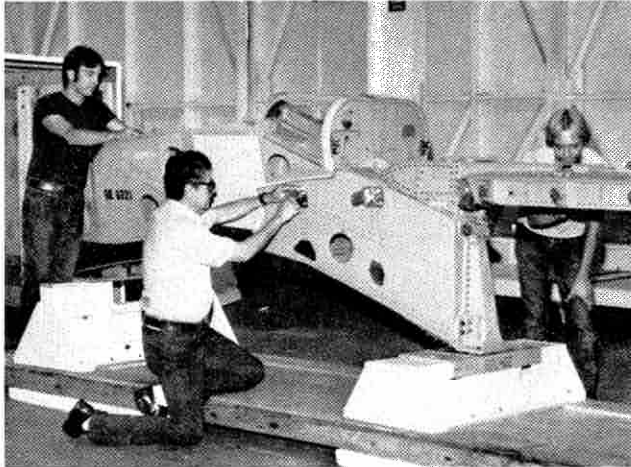
Employment

For the week ending May 3, employment was 7,726.

CONVAIR Weekly Log

May 18, 1981

Published by the Convair Division of General Dynamics



Ray Vazquez (kneeling), of Boeing Strut Assembly, readies the first GE 767 test strut for shipment, with help from Jim Bender (left) and Brad Spink, both of Shipping.

First Boeing 767 Engine Strut Delivered

Our first test strut for a Boeing 767 that will be powered by General Electric engines was delivered on April 30. The GE-powered version of the 767 competes with the version powered by Pratt & Whitney engines. For the P&W-powered version, we have already delivered five test struts and three production shipsets. The first production shipset of GE struts will be delivered in July. Four additional test units will be delivered between June and August.

Competition is keen between GE and P&W for engine sales on the 767. Each company now has about 50% of sales, which gives us a well-balanced production line.

Wei Kao Presents Paper on Manufacturing Process

Dr. Wei Kao, senior engineering metallurgist in Metals & Ceramics, presented his paper "Effect of Temporary Alloying by Hydrogen on the Vacuum Hot Pressing and Microstructure of Titanium Alloy Powder Compacts" at the 1981 National Powder Metallurgy Conference. The conference, held in Philadelphia May 4-6, was sponsored by the American Powder Metallurgy Institute.

'Convairsations with Management' May 19, 21, 28

Here's a reminder for everyone signed up for "Convairsations with Management." Dan Da Pra will cover Research & Engineering activities on Tuesday, May 19, at Lindbergh Field, building 4, first floor, operations conference room. Bill Dietz will cover cruise missile programs on May 21, at Kearny Mesa in building 5, mock-up conference room A. Chuck Bohle of Finance will host a seminar at Kearny on May 28 in place of Cushman Dow, who will be scheduled to a later date.

DC-10 Fuselage Delivered

We delivered fuselage 374, slated for the 12th Swissair DC-10, to McDonnell Douglas on May 15, in accordance with contract.

Shuttle's Future Keeps Mid-Fuselage Team Busy

When *Columbia* landed on April 14, members of our mid-fuselage team were perhaps even more jubilant than the rest of us. Then it was business as usual again as they continued their work that is a vital part of future space shuttle flights.

That's because the shuttle's basic mission is to carry cargo into space, and the mid-fuselage is the structure that will hold it. The structure is 60 feet long, to accommodate such payloads as Spacelab, experiments of many kinds, a large telescope, or the projected Centaur-in-shuttle for sending payloads on into deep space. The mid-fuselage interfaces with the orbiter's forward and aft body structure and the wings. Besides carrying cargo, the structure supports the payload bay doors, hinges, support fittings for various payloads, forward wing glove, and orbiter subsystem components.

Over the last few years, the several hundred people of Convair's mid-fuselage program have been involved in designing, manufacturing, assembling, and delivering the mid-fuselages for *Columbia* and two other orbiters. Those others are *Enterprise*, which made piggy-back test flights aboard a 747, and *Challenger*, which is scheduled to fly after *Columbia* has made several flights. We built the mid-fuselages for these three orbiters under our initial contract with Rockwell International, a contract now essentially completed.

Under our follow-on contract, we are building mid-fuselages for two future vehicles, *Discovery* and *Atlantis*. It is expected that additional orbiters will be built. Our mid-fuselage for *Discovery* is scheduled for delivery in January 1982, the one for *Atlantis* in 1983.

The mid-fuselage team of dedicated and skilled people works mainly at Lindbergh Field and Plant 19. The team is also supporting Convair's Centaur-in-shuttle project by providing orbital design data, design support, and personnel.

Johnston Honored by SAWE

Bob Johnston was elected a Fellow of the Society of Allied Weight Engineers at the society's 40th annual conference in Dayton last week. He has served the society in a number of capacities, the last two years as international vice president - technical director. Bob is manager of Engineering Cost Analysis and has been with Convair since 1952.

ASW Standoff Weapon Goes to Boeing-Gould

The U.S. Navy has announced that the Boeing-Gould team has been selected to develop the antisubmarine standoff weapon. Our proposal, which incorporated the technique called end-game targeting, apparently did not meet requirements as the Navy viewed them, especially for close-in targets. We are naturally disappointed because we felt that end-game targeting is the only reasonable solution for longer ranges. We will continue to review this important technology area for a few months before making a decision about our future participation.

George Drake's Energy Idea Chosen for Rolex Book
George Drake, an engineering specialist in Advanced Programs, was one of those who submitted ideas to the Montres Rolex Corp. of Switzerland in the company's worldwide contest called "The Rolex Awards for Enterprise 1981." The Awards for Enterprise program gathered innovative ideas in the categories of invention, exploration, and environment. Drake's submittal calls for the global, systemized use of seasonal ice (such as icebergs and glaciers) as a vast, untapped energy source. Although the notion of using seasonal ice is not new, his entry details its large-scale development for such uses as industrial refrigeration and cooling.

The Rolex Corp. has informed George that his entry will be published in the Rolex awards book for 1981.

Stock Investment Plan Values for March

Here are the unit values in dollars for the General Dynamics savings and stock investment plan as of March 31, 1981.

Salaried	1979	1980	1981
Government bonds	\$ 2.1294	\$ 2.3372	\$ 2.5835
Diversified portfolio	1.3704	1.6055	2.1869
Fixed income	—	1.0719	1.1850
Hourly			
Government bonds	2.1291	2.3363	2.5811
Diversified portfolio	1.4018	1.6388	2.2351
General Dynamics stock	\$16.3750*	\$33.5600	\$33.5000

* Reflects 2-for-1 stock split of November 1980.

Meatballs to Top Spaghetti Dinner May 20

Fun for members only is the idea behind the NMA Convair Chapter's Membership Appreciation Night this Wednesday evening at St. Columba's Church in Serra Mesa, near the Kearny Mesa plant. Bingo, wine, and beer will also be on tap.

Grand Prize Ford Escort at LF This Week

The 1981 Ford Escort sedan, grand prize in this year's Family Fun Day picnic, will be on display this week at Lindbergh Field. You can get tickets where the car is on display from 6:15 to 7 a.m. and 3:30 to 4:15 p.m. The car will be at gates 11, 2, and 1 in rotation.

The \$1 donation tickets are for the Special Drawing to be held at the picnic in Missile Park on Sunday, July 19. The Ford Escort, a 35-mm camera, and a 40-channel CB radio will go to some lucky winners.

New CRA Officers Installed

New Convair Recreation Association officers were installed by Jill Tippin, president of the San Diego Industrial Recreation Association, at a dinner on April 20 in the Missile Park pavilion. The officers elected to serve from April 1981 through March 1982 are:

President	Jim Pate	Estimating
Vice President	Dick Gilbert	Western Data Systems Center
Treasurer	Ted Stark	Manufacturing Engineering
Secretary	Jean Murphy	Labor Relations & Employment

Vegas, Mexico Among Upcoming Trips

These special trips for General Dynamics employees and families are sponsored by the NMA Convair Chapter. **Las Vegas Fourth of July Special.** Leave CRA on Thursday, July 2, and return on Sunday, July 5. The price of

KOALA-T KORNER

When machining NC parts, remember that each one must be machined in conformance with instructions. To debug a tape before Tool Inspection acceptance, several parts are normally made. On small lots, though, there may never be a "proofed, TI" tape. So even if the traveller calls it a proofing part, it really is a production part. Treat it like one. Let's build quality in!

You — not Inspection — make the quality parts.



\$215 per couple includes transportation and accommodations at Maxim's. Reserve with Sue Saussol (KM 1045) by May 29.

American River Rafting Trip. July 24-26 are the dates for this 20-mile white-water rafting adventure down the South Fork of the American River. The price of \$190 per person includes transportation, three meals on Saturday, and two on Sunday. May 22 is the deadline for Shirley Nowlin (KM 1163) to take your reservation and deposit of \$25.

Caribbean Cruise, October 16-24. Six inside rooms are still left aboard the MS *Skyward*. The price of \$1,143, double occupancy, includes air fare, half-day hotel, and cruise accommodations. Call Shirley.

From the CRA

Limber Up Begins May 19. The new Limber Up program stresses stretching, flexibility, and relaxation. The six-week class costs \$35 and begins at 4:40 p.m. on May 19 in the clubhouse.

Yugoslav Hams Available Now. The clubhouse salesbooth has a limited number of 11-pound Yugoslav hams at \$26.50 each. When these are gone, that's all until next Thanksgiving.

Sign Now for Queen Mary Trip June 6. This is the last week to get tickets for CRA Travel's Queen Mary trip on June 6. The \$25 price includes transportation, four-hour tour of the ship, Wayfarer's Chapel, Ports of Call, and dinner.

Tool Boxes at Half Price. The KM clubhouse salesbooth has two styles of tool boxes for sale. They're priced at \$13.50 and \$18, which is about half off list. Quantities are limited.

Bermuda Golf Tour. You can still reserve for the CRA golf tour to Bermuda October 7-15. Nongolfers are welcome, too. Call Bill Minando at KM 1511.

'Day of Justice' Is the Noon Movie This Week

Made several years ago, "Day of Justice" dramatizes the need for legal services for the poor. At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Employment

For the week ending May 10, employment was 7,727.

CONVAIR Weekly Log

May 26, 1981

Published by the Convair Division of General Dynamics



Those receiving awards were (alphabetically): Bruce Bartholomew, Emmet Christensen, Chuck Claysmith, Art Czack, Jack Fisher, Don Flowers, Fred Fujimoto, Gerhart Gross, Bob Henderson, Ron Henry, John Largent, E. T. Lipscomb, Bill McGrew, Bob McKelvey, Lee Murphy, Gerry Peddie, Dick Pleasant, John Porter, Cary Riley, Bill Rodin, Ed Russ, Austin Ryan, Dale Sutliff, Dan Swanson, Bob Tatro, and Lionel Wilson. Not present when the photo was taken were Bob Boriss, Ray McNamara, and Mark Moore. The awards were presented by George Blackshaw, vice president – Marketing, Dan Da Pra, vice president – Engineering, and Dennis Laue, IRAD manager.

IRAD High Scorers Receive Awards

As part of our IRAD (independent research and development) program, Convair annually submits to the government a brochure that summarizes our technical progress since the previous year and describes our research plans for the next year. The government evaluates and scores the individual projects in the brochure and then compiles an overall score for the division. The government also uses the brochure to establish in part how much it will reimburse Convair for the company's IRAD expenditures.

This year, 29 individuals received calculators or related equipment for having scored 90% or higher in their 1980 IRAD projects. IRAD manager Dennis Laue commented, "All others who contributed to our outstanding brochure this year are also to be congratulated. Next year, they may also be award winners."

The 1980 brochure totals 1,665 pages and contains more than 900 illustrations. The composite score the government gave Convair for the brochure was the highest the division has ever received.

Convair's IRAD program is a key element in attracting new business down the road, because our IRAD work develops advanced technologies and establishes contact with potential customers. The cruise missile was initially developed under an IRAD project in 1974.

Update on Tomahawk Sea Launched Cruise Missile

After four developmental test/operational test launches and the first flight test of a submarine launched land-attack Tomahawk since the first of the year, the submarine USS *Guitarro* has been placed in the dry dock maintenance facility at Ballast Point, San Diego. The *Guitarro* is scheduled to return to service in the cruise missile program early in July, when the SLCM submarine program will enter the operational evaluation phase of system validation.

Later this year, work will begin to establish a land-based test site for the surface-ship Tomahawk weapon system at the Pacific Missile Test Center. The test site will support system testing and ship's crew training

before the cruise missile weapon system is installed on board the destroyer USS *Merrill*.

An initial evaluation of proposed installation of cruise missile armored box launchers (ABLs) aboard the battleship USS *New Jersey* has been completed. This study was done in anticipation of the Navy's possible decision to activate one or more of its mothballed battleships and to install eight ABLs carrying a total of 32 Tomahawks, in addition to the ship's existing weapon systems.

Randy Taylor Presents Paper

Randy Taylor of Management Science, Western Data Systems Center, presented his paper "An Easy Method

FLIP

for Transposing Lines to Columns" at the 1981 FORESIGHT Users' Group Meeting. The meeting, sponsored by On-Line Systems, Inc., was held in San Diego on May 20-22 and was attended by 175 of the 8,000 world-wide users of the FORESIGHT Financial Modeling System.



Perfect attendance in 1980 won EXCEL awards for these people in Operations at Lindbergh Field: (alphabetically) George Armstrong, Joe Berardini, Scottie Brogan, Buttons Button, Ron Cain, Giovonni Croce, Bill Felton, Fred Fortaliza, Ed Fountain, Roy Larson, Frank Lopez, Ed McEntire, Gerry Moreno, Obie O'Brien, Dean Richetti, Circilio Rojas, Rick Sanchez, Mary Smith, John Valdez, and Benny Wesson. Rick Rowe, who also got a perfect-attendance award, was absent — on vacation — when the photo was taken.

Our utilities bill for April was \$875,568: electricity \$717,254, natural gas \$121,429, and water \$36,885. Our electrical rates are up 51% over last April, and lighting is our largest single utility expense. You can help by turning off lights when you leave your workbench, desk, drawing board, or office. Individual lights have their own switches and benefit no one when they're not being used. Remember, it pays to turn off fluorescent lamps whenever you leave. The energy cost over the life of a fluorescent lamp is 89 times greater than lamp cost. Save energy — turn off unnecessary lights.

Brochure Gets You Savings on Optical Services

The optometrist currently providing optical services to Convair employees has announced an increase in the basic fee structure. That's the bad news. The good news is that Convair employees are exempt from the price increase if they take the Employee Benefits eye-care brochure with them when they go to the optometrist for eye examinations and/or glasses.

Brochures are available in the Employee Benefits office at Kearny Mesa, building 8, and Employee Benefits Office/Safety Office at Lindbergh Field, building 16.

China Trip in Fall Has 4 More Places

The main cities of China, plus Hong Kong, are on the itinerary for the China trip September 27-October 14, sponsored by CRA Travel. The price is \$2,495 per person. Call KM 1111.

KOALA-T KORNER

If you work with or handle electrostatic-sensitive electronic parts and pyrotechnics, remember: Always use the grounding wrist straps provided for this purpose. When in doubt, check with your supervisor.



SAFETY SPOTLIGHT



"Bad backs are not contagious — just teach your people to lift safely!"

Learn the safety rules for proper lifting — protect your back. Knowledge is power — use it to help you lift objects safely!

MORE THAN JUST EXERCISE

Shape-Up: A Total Approach to Your Fitness

The Health-Fitness Center points out that Shape-Up classes are for more than just exercise; they offer a total approach to your individual fitness through a nine-point regime that includes weight-loss groups, stress and fitness evaluation, individualized jogging, and special events. The next Shape-Up program begins on June 8 at 4:30 p.m. in room C at the CRA clubhouse. Register with Sheryl or Marc at KM 1111.

NO 11 A.M. SHOW AT KEARNY

Golda Meir Interviewed in Noon Movie

In "Conversations with Golda Meir," the late world leader talks on many subjects, political and personal, as she recalls an active life that took her from childhood in Milwaukee to heading the government of Israel.

At Kearny Mesa, the showing will be on Wednesday in classroom 3 of building 17 at noon. There will be no showing at 11 a.m. because the projectionist is on vacation. At Lindbergh Field, shows will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

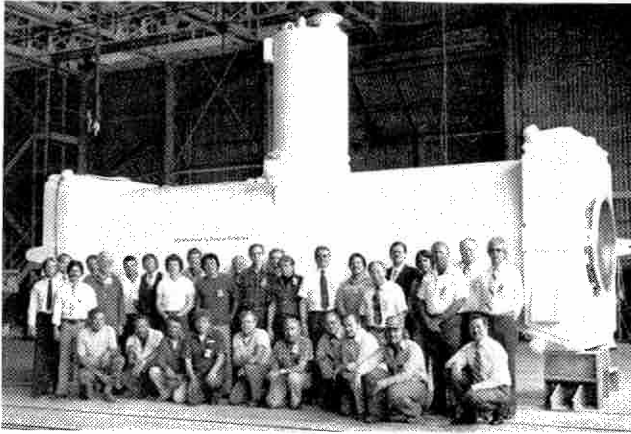
Employment

For the week ending May 17, employment was 7,755.

CONVAIR Weekly Log

June 1, 1981

Published by the Convair Division of General Dynamics



These program office and operations people handled final assembly and shipment of the magnet.

First Superconducting Magnet Shipped

A key event in Convair's Energy Systems work took place last week when we shipped to TRW in Redondo Beach our first superconducting magnet for the Preprototype Magnet System, which is a key element in the TRW Isotope Separation System. At TRW, Convair engineers will supervise installation into the overall system of the magnet, liquid helium refrigeration, liquid nitrogen cooling, power and control, and vacuum sub-systems — all designed by Convair. Program manager Greg Danningger said that installation and checkout of the magnet system will be completed by September.

Design of the superconducting magnet, which began in April 1978, took a year. Fabrication took about two years. Winding the magnet's 13 miles of superconductor began in May 1980, in our Harbor Drive facility.

For shipment last week from Harbor Drive, two 60-ton cranes loaded the magnet onto a truck trailer that had 58 tires to support the magnet's weight of 44 tons. Because of the load's height (more than 17 feet), special routing that avoided low wires and highway overpasses was required.

Dr. Ray Beuligmann, Energy Systems program director, expressed his appreciation for an outstanding effort by everyone associated with the superconducting magnet program. That includes some 165 people from Engineering, Operations, Quality Assurance, Procurement, Contracts, Estimating, and Finance.

How our magnet performs is crucial in the selection the Department of Energy is expected to make in April 1982 of a winner among three competing isotope-separation systems. A win for the TRW system would put General Dynamics in a good position for manufacturing additional magnets identical to the one just shipped as well as the 500-ton production magnet.

Color TV Gets Boost from Intelsat Launch

The Intelsat V satellite launched by Atlas/Centaur on May 23 has almost double the capacity of earlier

satellites in the Intelsat series. It will provide the simultaneous relay of 12,000 two-way telephone conversations, plus two color-television transmissions, to the 105 member nations of the International Telecommunications Satellite (Intelsat) organization. When your TV brings you a news event live from another continent, it's usually transmitted via an Intelsat satellite launched by Atlas/Centaur.

Like its predecessor, which was launched last December, this Intelsat weighed 4,251 pounds at liftoff. After launch from Cape Canaveral, it was positioned in geosynchronous orbit over the Atlantic Ocean as the prime Intelsat satellite for communications services between the Americas, Europe, the Middle East, and Africa.

Next 'Convairsation with Management' June 4, 9

The next "Convairsation with Management" will be hosted by Bob Foushee, who will cover our aircraft activities. The seminars will be held at Kearny Mesa on Thursday, June 4, in the building 5 mockup conference room A and at Lindbergh Field on Tuesday, June 9, in the building 4 operations conference room. Both sessions will be from 4:30 to 5:30 p.m. Everyone signed up is urged to attend.

Picnic Box Lunch Tickets Go on Sale This Week

Lou Imbimbo, chairman of Convair Family Fun Day, our annual NMA-CRA picnic in Missile Park, Sunday, July 19, says, "Pay now, eat later. Admission to the picnic is free and you may bring your own food, but if you want Kentucky Fried Chicken box lunches, you must purchase tickets in advance. No tickets and no lunches will be sold at the park." The box lunches are \$2.25 each. Tickets are on sale at Employee Benefits and the CRA clubhouse and from any NMA Convair Chapter representative.

MBA Program in Weekend Format Offered

Southern Illinois University is offering locally a fully accredited MBA through weekend study. Get details on the program today at 4 p.m., when Dr. Wayne Label, university faculty advisor, will meet with interested General Dynamics employees in the building 2 presentation room at Kearny Mesa. For information, call Phyllis Jensen at (714) 437-1133 or Don Davis at KM 2312.

Convairites in Energy/Quality Assurance Conference

The third annual Western Energy/Quality Assurance Conference, sponsored by the American Society for Quality Control, which takes place in Industry Hills, California, on June 25, will find Convair engineers in several roles. Bill Johnston of Quality Assurance (301) heads the program committee. Bill Lankelis of Quality Engineering (310) will present a paper he coauthored with Walt Gill of the same department: "Large Coil Program Solder Bond Inspection System." For details about the conference, call Bill Johnston at KM 3281.



Honored at a Service Awards breakfast hosted by Dr. Buchanan are these General Dynamics employees who recently completed 35 or more years of service. From left to right: Jim Sugg, John Shaw, Ed Ewert, Al Martino, Bill Wade, Jim Bence, Bob Brown, Earl Gregory, "Skee" Salefski, Dr. Buchanan, Floyd Rector, Bob Trout, George Mayer, John Valdez, Steve Jurchenko, Jr., Bill Tucker, Reggie Sanchez, Ralph Brent, Robert Padillo, and Dan Da Pra.

Representing the division staff, along with Dr. Buchanan, were Shaw (attending for Sid Wilkerson), Sanchez (attending for John Silverstein), and Da Pra.

QUANTITY LIMITED

Machinery's Handbook Available at Big Discount

Employees can buy the latest edition of "The Machinery's Handbook" at a discount of more than 22%. The book retails for \$35, but 25 copies are available for \$27.20, plus \$1.63 tax. If you want a copy, bring a check or money order for \$28.83, made out to Wahrenbrocks Book House, to Urban Sweeny in the Kearny Mesa library or Wayne Turner in Educational Services at Lindbergh Field.

Talk on Free Enterprise at Dinner June 23

Steve Ritchie, Adolph Coors Co. representative, Vietnam jet ace, and vigorous spokesman for the free enterprise system, will be the speaker at the NMA Convair Chapter dinner meeting on June 23 at the Bahia Hotel. The program, which begins at 7:30 p.m., following dinner, includes awarding scholarships to deserving children of General Dynamics employees. Everyone is invited. All Convair Chapter boosters have tickets.

Free Boating Safety Show June 7

The U.S. Coast Guard invites the many boaters at Convair and their families to attend the Boating Safety show from 10 a.m. to 6 p.m. on June 7 at the Coast Guard Air Station on Harbor Drive. Events will include helicopter rescue and hovercraft demonstrations, tours of Coast Guard boats, exhibits of safe-boating equipment, and music by the Marine Corps band.

Join Puerto Vallarta Trip September 3-8

The \$385 double occupancy includes transportation, baggage handling, tips, and five nights at the Molino de Agua. Call Shirley Nowlin at KM 1163. The trip sponsor is the NMA Convair Chapter.

KOALA-T KORNER

Short story:

- *Parts were being rejected for cracks.*
- *Spec called for hole-sawing.*
- *Punch-press is quicker.*
- *Unauthorized substitution was made.*
- *Cracks around holes resulted.*
- *So before "improving," check the spec!*



From the CRA

Scuba Activities This Week. An advanced scuba class starts today at 4:30 p.m. in the CRA clubhouse. A basic class starts on June 8 at the same time and place. Bring your swim suit. CRA Scuba Club meetings are on the first Tuesday of the month (that's tomorrow) at 4:30 p.m. in clubhouse room B. Details from Rich, KM 3388.

Gem, Mineral Show June 6-7. Everyone is invited to the Rockhounds' biggest-yet gem and mineral show in the clubhouse from 9 a.m. to 8 p.m. Saturday, June 6, and 9 a.m. to 5 p.m. Sunday, June 7. Admission is free.

Shape-Up Class Starts June 8. To register for the next Shape-Up fitness class, which starts at 4:30 p.m., June 8, in the clubhouse, call Sheryl or Marc at KM 1111.

Change Your Date with the Queen. CRA Travel's Queen Mary trip, originally scheduled for June 6, has been postponed to June 13. That opens up a few vacancies. Call KM 1111.

Nutritious Cooking Class June 16, 23. Practical applications of nutrition from shopping to cooking will be taught by nutritionist-dietician Helen McDonald in a two-day food preparation and tasting class on June 16 and June 23. The class will be from 5 to 7 p.m. in room C at the clubhouse. The fee is \$20. Reserve at KM 1111.

Tool Boxes at Half Price. Two styles of tool boxes on sale in the clubhouse are priced at \$13.50 and \$18 — about half the list price.

Coal for Our Energy Needs Is Noon Movie Topic

Along with mining and processing, "Coal: Bridge to the Future" delves into how coal may become an economical source of liquid and gaseous fuel.

At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Employment

For the week ending May 24, employment was 7,793.

CONVAIR Weekly Log

June 8, 1981

Published by the Convair Division of General Dynamics

Tomahawk Part of CBS Special on Defense

Film provided by Convair on the Tomahawk cruise missile will be included in a five-part television series that begins next Sunday evening. Titled "Defense of America," the CBS-TV special will air locally on channel 8 from 10 to 11 p.m., June 14 through 18.

NASA Requests Shuttle/Centaur Work

We received a letter contract from the Lewis Research Center of the National Space and Aeronautics Administration for the design, development, test, and evaluation of Centaur for the Shuttle/Centaur Program. This program involves integrating our successful Centaur upper stage into the space transportation system (space shuttle) to support NASA's deep-space missions. The program will provide Centaur vehicles for the Galileo mission to Jupiter, scheduled for launch in April 1985, and the international solar polar mission, scheduled for launch in 1986.

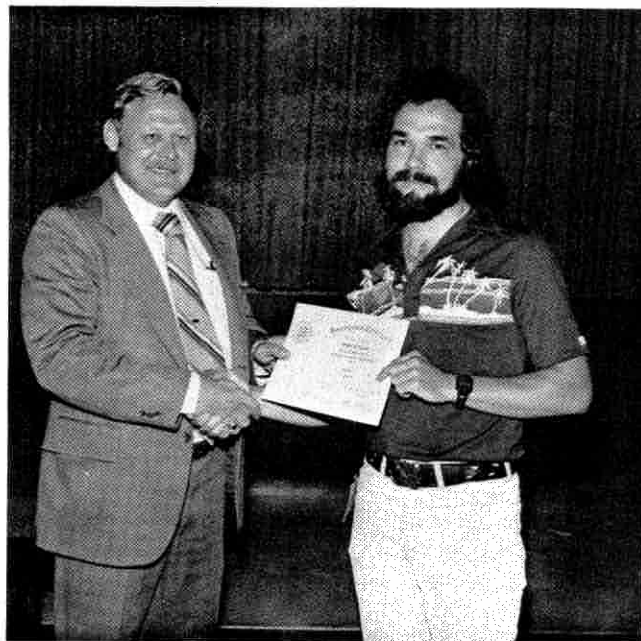
The Centaur vehicle for shuttle will have a wide-body design to increase propellant capacity by 50%. The liquid hydrogen fuel tank will be 170 inches in diameter, rather than the 120 inches of the current Centaur. Centaur's liquid oxygen tank will remain 120 inches in diameter, but its propellant capacity will be increased by a 30-inch-high cylindrical section. The Centaur, along with the spacecraft, will be carried into an orbit 150 miles above the earth by the space shuttle orbiter. Centaur and the spacecraft will then separate from the orbiter. After moving a safe distance from the orbiter, Centaur's engines, powered by liquid hydrogen and liquid oxygen, will ignite, and Centaur will guide the spacecraft to its required mission flight path.

The high-energy capability of Centaur as a space shuttle upper stage will make possible many new earth-orbiting missions, as well as planetary exploration missions. These missions ensure use of Centaur into the next decade.

Centaur's Role in Voyager Success Recognized

At the Voyager awards ceremony held at the Jet Propulsion Laboratory last week, Bill Rector, vice president - Space Programs, accepted a NASA award on behalf of Convair. The award was made in recognition of our contributions to the success of the two Voyager missions, which were launched by Titan/Centaur. The Voyager spacecraft carried out unprecedented exploration of Jupiter and Saturn and of interplanetary space.

At the same ceremony, Chuck Wilson, director - Shuttle/Centaur Program, received the Public Service medal. The award was granted for exceptional contributions to the Voyager mission through planning and managing the implementation of the D-1T Centaurs for the Voyager Titan/Centaur launch vehicles.



Bill Lawless (right) receives the certificate and pin that mark his completion of Convair's apprenticeship program. Bob De Bill, general supervisor of the Low Rate Production Facility (Dept. 031), makes the presentation. Bill, a machinist in the facility, received his associate of science degree in Machine Shop from San Diego City College.

Corporate Stock Plan Values for April

Here are unit values in dollars for the General Dynamics savings and stock investment plan as of April 30.

	1979	1980	1981
Salaried			
Government bonds	\$ 2.1457	\$ 2.4067	\$ 2.5671
Diversified portfolio	1.3844	1.6709	2.1570
Fixed income	—	1.0799	1.1954
Hourly			
Government bonds	2.1455	2.4047	2.5647
Diversified portfolio	1.4162	1.7044	2.2049
General Dynamics stock	\$15.5000*	\$33.8750*	\$34.000

*Reflects 2-for-1 stock split of November 1980.

OPEN TO ALL EMPLOYEES

New Management Seminar Begins June 29

A seven-week seminar sponsored by the NMA Convair Chapter will be a group interpretation and discussion of the book "Management and Machiavelli" by Antony Jay. John Anselmo will be the discussion leader. The seminar starts on June 29. It will be held on Mondays and Wednesdays from 11:45 a.m. to 12:30 p.m. at Kearny Mesa in the Think Tank conference room on the second floor of building 26.

The fee is \$3 for members and \$5 for nonmembers. Enrollment is limited to 20 people. Call Helen Haltmeier at KM 3357.

Procurement-on-Line Training Starts June 19, 22

The schedule for procurement-on-line (POL) system training is:

Lindbergh Field, Building 5, Engineering Auditorium

Friday, June 19, from 1 to 2:30 p.m.

Friday, June 26, from 8 to 9:30 a.m.

Kearny Mesa, Building 5, Mockup Conference Room C

Monday, June 22, from 1 to 2:30 p.m.

Tuesday, June 23, from 1:30 to 3:30 p.m.

Government Property Accounting Effort Under Way

The Property Administration Group has started to prepare our Government Property Accounting Manual. Convair currently has more than \$500 million worth of government and Convair-owned property, points out Norm Keith, chief of Property Administration. The document will be important in our getting certification to handle the government's tools, dies, and other property. Dave Hawk, supervisor of the Property Administration Group, will contact various departments for help in preparing the manual. Please lend a hand when asked to do so.

Got an Extra Desk? Stash It Till You Need It

There's nothing in that unused desk except two paper clips and lint, anyway. Or maybe you have an unused chair or bookcase in your area. Here's the deal: excess furniture that you store *will be returned* to you when you need it. You have nothing to lose and floor space to gain. Call Dave Wells at KM 2553.

Attend Next 'Conversations with Management'

Here is the schedule for the next "Conversations with Management" seminars. Everyone is welcome, and those already signed up are urged to attend. Convair's aircraft activities will be covered by Bob Foushee on Tuesday, June 9, at Lindbergh Field in the building 4 operations conference room. Jay Hawley will host seminars on the objectives and operations of our Contracts and Estimating Departments. Hawley's first seminar will be held at Kearny Mesa on Thursday, June 11, in the building 5 mockup conference room A; his second will be at Lindbergh Field on Tuesday, June 16, in the same location as Mr. Foushee's. All sessions are from 4:30 to 5:30 p.m.

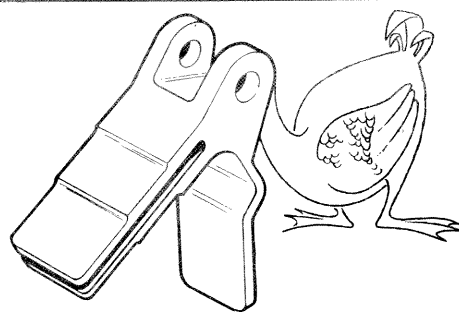
Grand Prize Ford Escort Returns to Kearny

The 1981 Ford Escort sedan, grand prize in this year's Family Fun Day picnic special drawing, will again be on display at KM gates for the next two weeks. Someone is going to win this car for just a one-dollar donation. Tickets are available at the car from 6:15 to 7 a.m. and 3:30 to 4:15 p.m. There is no limit to the number of chances you may hold and you do not have to attend the picnic on Sunday, July 19, to be a winner. The tickets are also chances on a 35-mm camera and a CB radio.

VIETNAM ACE TO SPEAK

Scholarships to Be Awarded at Dinner June 23

The NMA Convair Chapter's annual Scholarship Awards Night dinner meeting will be on Tuesday evening, June 23, at the Bahia Hotel. Scholarships will be awarded to the winning children of General Dynamics employees. Vietnam jet ace Steve Ritchie, vigorous spokesman for the free enterprise system, will be the speaker. Everyone is invited. All chapter boosters have tickets: \$8 for members and \$10 for nonmembers.



KOALA-T KORNER

How should you handle an \$8,500 duck? Very carefully. The ducks we're referring to are the midspar fittings (or duckbills) used on the Boeing 767 strut. These duckbills are sensitive; do not set them on tables or racks without placing special padding under them. If even minor scratches are detected, the duckbills must be sent back to the vendor. That results in costly rework and schedule delays. Help protect our ducks.

From the CRA

Shape-Up Class Starts Today. Call Sheryl or Marc at KM 1111 to register for Shape-Up, which starts today at 4:30 p.m. in the clubhouse.

Join New CRA Computer Club June 10. All members and prospective members are invited to the next general meeting of the new CRA Personal Computer Club, in meeting room A of the clubhouse at 4:30 p.m. this Wednesday. The program will include forming special-interest groups and voting on club bylaws, along with a guest speaker and software demonstrations.

Padres Fireworks Night Tickets. The KM and LF salesbooths and Jim Pate (KM 1940) have a limited supply of tickets for the Padres-Cincinnati ball game on July 4. That's also Fireworks Night. The plaza-level seats are \$5 each.

Bermuda Golf Gives Way to Jamaica. The CRA Golf Club trip to Bermuda has been replaced by a Jamaican group tour October 5 to 12. Attend the free presentation on June 15 at 7:30 p.m. in the Missile Park pavilion.

Nutritious Cooking Class June 16, 23. Practical applications of nutrition from shopping to cooking will be taught by nutritionist-dietician Helen McDonald in a two-day food preparation and tasting class on June 16 and June 23. The class will be from 5 to 7 p.m. in room C at the clubhouse. The fee is \$20. Reserve at KM 1111.

'To Fly' Screens as Noon Movie This Week

Flight from balloon ascensions to space travel, outstanding photography, and a lot of Americana are among the reasons "To Fly" has been winning awards every since its premiere at the opening of the Smithsonian Air & Space Museum a few years ago. It's well worth seeing, even on the conventional screen used in our noontime showings.

At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Employment

For the week ending May 31, employment was 7,773.

CONVAIR Weekly Log

June 15, 1981

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Atlas G Program Begins

The NASA Lewis Research Center has directed us to lengthen the present Atlas SLV-3D space launch vehicle 80 inches. The lengthened vehicle, designated Atlas G, will enable Atlas/Centaur to place heavier payloads in orbit. Howard Bonesteel, Atlas/Centaur program director, stated that the Intelsat V-A will be the first payload launched on Atlas G (as part of Atlas/Centaur 62). That launch is scheduled for early 1984.

Launch complex 36B at the Eastern Test Range will be modified to accommodate the longer vehicle. Studies are now under way to see how Complex 36A may also be used by the stretched Atlas.

Space Shuttle Team Celebrates

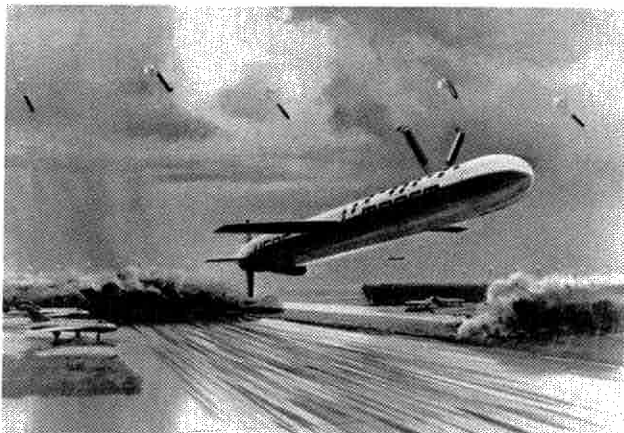
The success of the first space shuttle flight and General Dynamics' contributions to that success prompted the "thank you" party held in Missile Park on June 4 for the Convair employees involved, as well as people from NASA and Rockwell International. (RI is the prime shuttle contractor; under contract to RI, we produce the orbiter mid-fuselage.)

About 800 people attended. They saw displays of mid-fuselage hardware and photos depicting the entire program from its beginning to the landing of the *Columbia* on April 14. They also saw a continuous videotape of the orbiter's launch, flight, and landing, narrated by *Columbia* pilots John Young and Bob Crippen. Another videotape showed Convair's deployable beam, which will be carried into space by the shuttle as the mainstay of future construction in space.

Bill Rector, vice president and program director of Space Programs, John Silverstein, director of Quality Assurance, and George Esslinger, director of Fabrication, were there to thank the Convair people who did the work and who will continue our successful space shuttle mid-fuselage program. The NASA and Rockwell International representatives on hand also extended thanks to the Convair team. NASA orbiter project manager Aaron Cohen and deputy program manager Milt Silveira couldn't make it to the party, but sent a telegram: "We wish to congratulate our team members at General Dynamics Convair for the outstanding job they did on the space shuttle orbiter mid-fuselage. Your efforts were a major contributor to the success of the first flight of the *Columbia*."

Many volunteers spent considerable time setting everything up for the party and pitching in to serve dinner. Special thanks go to them, too.

MRASM: A New Dimension in Conventional Air Power



Airfield attack is a primary MRASM mission.

The Tomahawk II MRASM (medium-range, air-to-surface missile) is a conventional (non-nuclear) weapon system we are developing for the Air Force and Navy. The MRASM program is managed by the Department of Defense Joint Cruise Missiles Project Office. MRASM inherits much of its design from our Tomahawk and air launched cruise missile programs. Several major new design features have been introduced to reduce MRASM's cost, including the use of dry wiring, a federated avionics data bus system (using the Convair-developed digital integrating subsystem or DIS), a strap-down inertial sensor, and a turbojet engine.

The AGM-109H, an Air Force version planned for launch from the B-52, will be used for airfield attack (see picture). Flying across enemy airfields, the 109H

can disperse small munitions in precise patterns on runways and taxiways. The resultant cratering will close the airfield for extended periods and force enemy aircraft to disperse to less-defended secondary bases, where they are destroyed by our aircraft. Should a conflict arise, the MRASM -109H will be a decisive factor in maintaining our air superiority.

Other planned versions of Tomahawk II use a single, large warhead mounted in the forward section of the AGM-109H vehicle. The AGM-109I is a Navy version that can be used as an antiship weapon for sea-lane control or as a land-attack weapon. Initially, it will be launched from Navy A-6E aircraft. A passive imaging infrared seeker mounted in the nose of the AGM-109I will allow the pilot to perform target selection by means of a data link while attacking at standoff range.

The AGM-109K is an Air Force variant of the -109I that can accommodate a larger warhead, since the -109K has neither the length nor weight constraints associated with aircraft carrier operations.

A preliminary full-scale engineering development (FSED) effort for MRASM began in July 1980. We expect that Convair will be awarded an expanded FSED contract later this summer. Flight testing will start in late 1982 and continue through 1984. MRASM production deliveries will begin in 1985.

MRASM provides Convair with a sound business opportunity. Our expanded role in avionics, software, and rate production because of Tomahawk II will generate challenging and creative jobs. Further down the road are growth versions using other munitions and terminal

guidance systems for use against additional high-value, heavily defended targets.

Use Ladki Rental Cars for Business, Pleasure

Convair has issued a contract to Ladki International Rent-a-Car for the firm to handle short-term, company-business car rental requirements that PHd cannot accommodate. Whenever you need a car that PHd cannot supply at the time, call Ladki at 233-9333. Ladki now replaces Jet Rent-a-Car, Americar, and Airways Rent-a-Car in supplying this short-term car rental service.

All General Dynamics employees wanting to rent a car for personal use can get one from Ladki at 20% off the standard rate. Rates, which start at \$19.95 a day (less the 20%), include 100 free miles a day. Call Ladki direct or the CRA at KM 1111.

They Retired in May

Convair's thanks and best wishes go to each of these employees who retired last month:

Name	Department	Years of Service
Fred Agüero	Production Control	29
Martin T. Barringer	Machine Parts	21½
Emery D. Bryans	Machine Parts Planning	30½
Melvin H. Button	Subassembly Doors & Jambs	38
Paul R. Conner	Estimating	30
John W. Costley	Receiving Stockroom	25
Albert I. Cox	Machine Shop	39
Gene L. Darr	DC-10 Assembly Section	38
Rudy R. Delgado	Custodial Service	2
Ann S. Donnelly	Time Audit	28
James F. Dubois	Machine Parts Inspection	31½
Maxine E. DuBois	Systems Development (WDSC)	14½
Harold L. Fix	Tool & Die Processors	23½
William A. Folsom Jr.	Receiving Inspection	30
Merlin F. Gabriel	Welded Subassembly	36½
Gordon Hamilton	Vehicle Final Assembly	20½
Eugene N. Harmon	Administration (WDSC)	21
Doris M. Howser	Retirement Accounting	37½
Charles R. Jackman	NASA Launch Operations (ETR)	36
Samuel Kaye	Test & Research Lab	24
Boise R. Kooperman	Engineering Liaison	26
Ernest F. Kotnik	DC-10 Program	40½
James K. Kramer	Vehicle Final Assembly	26
John P. LaLanne	Machine Shop	37
Jesse W. Lewis	Experimental Shop	12
Francis J. Longworth	DC-10 Subassembly	38
Richard B. Maddox	DC-10 Floor Beams	42
Frank Malcangio	Metalbond Plastics	16
Gerald F. Marcello	Machine Shop	36
Marvin L. McCreary	DC-10 Assembly	34
Harvey G. Mondy	Plant Fabrication	25
Bert E. Mundt	Assembly Inspection	39½
John W. Nesseim	Tool & Die Processors	28
George B. Nicoloff	Preliminary Design	34
Anthony Oddo	Special Test Equipment	24
Raymond H. Poulsen	Engineering Labs	27
Joseph J. Rehm	DC-10 Assembly	24
Frances S. Riley	Stockroom	34½
Robert R. Robinson	DC-10 Subassembly	39
Melvin H. Russell	Custodial Service	4
Jesus L. Sanchez	Cruise Missile Inspection	24
Edgar R. Seamans	Machine Shop	2½
William Seipel	DC-10 Assembly	15
Marilyn G. Sorcinelli	DC-10 Assembly	30
Charles V. Spear	Quality Program Audits	43
Edwin L. Swanson	Machine Parts Inspection	34½
Mary G. Tambornino	Allocations Priorities	37
Robert G. Trout	DC-10 Assembly	40
Edward J. Velton	Marketing	27
Eugene Villegas	Boeing Strut Assembly	38
Josephine A. Vojtech	Industrial Accounting	21
Donnes S. Vollmer	Crewload Performance	29
Hershel L. Wade	DC-10 Floor Beams Assembly	39
William A. Wade	Assembly Inspection	40
Loyd L. Walker	Receiving Inspection	32
Helen P. Wauschek	Message Center	25

KOALA-T KORNER

Factory transportation trailers should not be used as storage racks for such things as raw materials, forgings, or frames. Before a trailer is loaded, its condition should be checked. Look for protruding bolts, nails, absence of padding, etc. Kraft paper must be used to protect parts. Prevent damage to expensive parts and materials!



Procurement-on-Line Training Starts June 19, 22

The schedule for procurement-on-line (POL) system training is:

Lindbergh Field, Building 5, Engineering Auditorium

Friday, June 19, from 1 to 2:30 p.m.

Friday, June 26, from 8 to 9:30 a.m.

Kearny Mesa, Building 5, Mockup Conference Room C

Monday, June 22, from 1 to 2:30 p.m.

Tuesday, June 23, from 1:30 to 3:30 p.m.

'Conversations with Management' June 18, 23

Here's the schedule for the next "Conversations with Management" seminars. Bill Rector, vice president and program director of Space Programs, will host seminars on the objectives and operations of our Space Programs activities. Rector's first seminar will be held at Kearny Mesa on Thursday, June 18, in building 5, conference room A. His second will be at Lindbergh Field on Tuesday, June 23, in the operations conference room on the first floor of building 4. Both sessions will be from 4:30 to 5:30 p.m. All employees are welcome. If you did not sign up initially but would like to attend, please notify Bill Rector's office at KM 1831.

Talk on Free Enterprise at Dinner June 23

Steve Ritchie, Vietnam jet ace, will be the speaker at the NMA Convair Chapter dinner meeting on June 23 at the Bahia Hotel. The program, which begins at 7:30 p.m., following dinner, includes awarding scholarships to deserving children of General Dynamics employees. All Convair Chapter boosters have tickets.

From the CRA

Talk on Wilson Stamp June 18. The CRA Stamp Club meeting at the clubhouse on June 18 at 7 p.m. will include a short talk on the one-dollar Wilson stamp by well-known local collector Jack Lutwick. There will also be an auction and trading session. Everyone's invited.

Divers Day June 20. Divers Day, sponsored by the Convair Scuba Club, will be on June 20 from 9 a.m. to 4 p.m. in the clubhouse. Films, talks, displays, demonstrations, and a swap meet will be part of the event.

Free Rock a'Robics Class June 22. Attend a free Rock a'Robics class at the clubhouse on June 22 at 4:30 p.m. or on June 23 at 9:30 a.m., 4:30, or 5:30 p.m.

Noon Movie Takes Up Care and Feeding of Plants

"House Plants — Indoors/Outdoors" shows you at least all you ever wanted to know about their varieties, potting, soil, transplanting, light, and feeding.

At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Employment

For the week ending June 7, employment was 7,807.

CONVAIR Weekly Log

June 22, 1981

Published by the Convair Division of General Dynamics



Putting the exhibit together at Kearny Mesa

Cruise Missile Displayed at Paris Air Show

A General Dynamics ground launched cruise missile was displayed at the Paris Air Show June 4-14. The annual event at Le Bourget airfield is the world's largest exposition of military and civilian aircraft, along with armaments. This year, the show attracted more than 700 exhibitors from around the world.

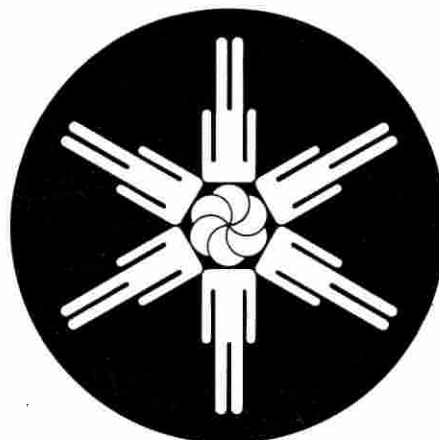
The request for a General Dynamics GLCM exhibit allowed very little turnaround time and required coordinated efforts from many Convair people. Roy Gjertson of Art & Editorial designed the support structure that was to hold the missile and the integrated display panels. Ray McNamara of Preliminary Design, working with Roy, handled the stress engineering involved in designing the cruise missile support. Along with Bob De Bill's Prototype Group and others, they worked through the Memorial Day weekend to produce the support structure and display panels. All hands finished the job with only hours to spare before the entire display had to be air-shipped to Paris.

Convair Welcomes Summer Interns

At work now in Convair are the young interns and co-ops who will be spending the summer working with us. When you meet them, please extend a welcome and helping hand to the first-time interns, as well as those who have been here before. College Relations thanks all Convair employees who have offered housing to the summer interns.

'Convairsations with Management' June 23, 25, 30

Bill Rector, vice president and program director of Space Programs, will host a discussion covering Space Programs objectives and operations. The seminar will be held at Lindbergh Field on June 23 in the building 4 operations conference room. George Roos, director of Integrated Logistics Support, will cover ILS activities on June 25 at Kearny Mesa in the building 5 mockup conference room A; and at Lindbergh Field on June 30 in the building 4 operations conference room. All sessions will be from 4:30 to 5:30 p.m. Everyone who signed up is welcome to attend.



Quality Circles

PUTTING OUR HEADS TOGETHER

What's Happening in Quality Circles

Now that Quality Circle activity is on the upswing, people are asking what the Circles are all about. General Dynamics has adopted the Quality Circle concept throughout the corporation as a means of involving people in improving the work environment and increasing productivity.

A Quality Circle is a group of volunteers and their supervisor who meet one hour every week. After training, the group brainstorms problems in its work area, analyzes the problems, collects data, and then makes problem-solving recommendations to management.

Convair has three circles in the pilot phase: in the Machine Shop (Dept. 015), Cruise Missile Avionics (Dept. 050), and Receiving Inspection (Dept. 358).

Machine Shop Quality Circle Makes Presentation.

Members of the Quality Circle in the Machine Shop Cost Center 07 recently made their first presentation to management. Ray Castanon, Joe Marino, and Horst Stargardt discussed problems identified by the group, presented data, and made recommendations to improve productivity. According to Circle leader Charles Sanford, the Circle is beginning to improve the work environment.

Quality Circles Program Begins at WDSC. Western Data Systems Center (WDSC), the West Coast arm of General Dynamics Data Systems Services, has initiated a Quality Circles Program. WDSC's first Quality Circle will be based in the Business Systems Development Department (SD&P). The program will be directed by a six-member Steering Committee composed of WDSC managers. Connie Gruber, of SD&P, will be the Quality Circles Program facilitator. In that capacity, Gruber will be responsible for guiding the program and will

FLIP

train the volunteers in techniques of problem solving and analysis, data gathering, and group dynamics.

In October, the WDSC Steering Committee will review the pilot program to evaluate progress and determine future goals.

Ford Escort Donations Benefit Employees

Every one-dollar donation you make for a ticket improves your chance of winning the new Ford Escort, grand prize in this year's Family Fun Day drawing. It also provides money for improving CRA facilities and helps fund the scholarships awarded annually by the NMA Convair Chapter. You do not need to be present at the Family Fun Day picnic on July 19 to win the Escort, the 35-mm camera, or the CB radio.

Geostationary Platform Contract Signed with NASA

We will continue our Geostationary Platform Phase A study under a contract recently signed with NASA. The study will provide the space agency with a conceptual design for an experimental geostationary platform. This extension brings the total contract value to \$777,000. Phase B, which will begin in late 1982, will be design competition for the platform.

People Are Asking . . .

What Does Property Administration Do?

Several readers who saw the recent article on government property have asked what the Property Administration group does. Here's the reply of Frank Robbins, Convair's Property administrator.

"Whenever new contracts are received, certain tools, dies, steel, aluminum, work stands, trailers, test sets, etc., are either furnished to us by the government, are fabricated by us, or purchased by us and charged against the contract involved.

"These items of government property then become the responsibility of Property Administration. We establish accountability and control of the property to ensure that status reports, locations, inventories, storage, preservation, and the plant clearance of items no longer needed or required are properly documented and reported to the Local Defense Contract Administration Services office."

Frank concludes, "Your help is requested because we need to know whenever any government property is moved, lost, becomes surplus, etc. Please call Frank Schoen at KM 6003 if we can assist you with any question regarding government property."

DR. BUCHANAN THE SPEAKER

NMA Convair Chapter Recognition Day Held

The Convair Chapter of the National Management Association held its annual Recognition Day on June 17 in the employee dining room at Kearny Mesa. Dr. Buchanan was the speaker. The purpose of the event, points out Awards director Aaron Banks, was to honor the members and nonmembers who contributed to the success of chapter activities during the 1980-1981 chapter year. In his address, Dr. Buchanan stressed the importance of the NMA Convair Chapter in promoting management growth and teamwork within Convair.

KOALA-T KORNER

Several cruise missile fins had to be scrapped because they had been cleaned with a chemical solvent, which ruined plastic surfaces. This method of cleaning was not part of planning. When you are confronted with an unplanned task, check and double-check procedures for applicability and safety.



DC-10 Fuselage Delivered

DC-10 fuselage 376, scheduled for a Canadian Pacific aircraft, was delivered to McDonnell Douglas on June 17. High winds delayed delivery for one day.

Space Programs Vendors Visit Convair

Representatives from 60 companies that supply materials and components for our space activities met last Friday with Convair Space Programs people, including Program Director Bill Rector, Chuck Wilson, Howard Bonesteel, Ben Wier, and Art Regopolos, along with Procurement Director Russ Babcock. They briefed the vendors on Convair space activities and urged them to continue their high level of support. The day concluded with a plant tour.

Typing and Shorthand Proficiency Tests Offered

If you would like to get a proficiency certificate for your typing or shorthand skills, call the Midway Community College Adult Center at 230-2383. The proficiency tests will be given during both daytime and evening classes.

Convair's total utilities bill for May was \$912,282. Electricity cost \$782,654, natural gas \$94,756, and water \$34,872. Our electrical rates are up 34% over last May. Air conditioning is a major consumer in summer. Keep windows and doors to air-conditioned areas closed, set air conditioning thermostats no lower than 78F, and please remember that unnecessary lights add to the heat load.

Convair Toastmasters 3745 Elects New Officers

The newly elected officers of Convair Toastmasters 3745, who will serve from July 1 through the end of 1981, are:

President: Gary Stachwick
Educational Vice President:

Bill Lankelis

Administrative Vice President:
Dennis Uhlken

Secretary: Mary Alice Litten

Treasurer: Jet McConnell

Sergeants-at Arms:

George Paul and Doug Zink

Save 25% at Zoo and Wild Animal Park July 1-19

Visit the San Diego Zoo or Wild Animal Park July 1-19 at a 25% saving. Call the CRA at KM 1111.

Highway Safety Is Topic of Noon Movie

"Booby Traps" shows potential highway death traps such as wide bridge abutments, roadside trees, and blind curves, then suggests remedies.

At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Employment

For the week ending June 14, employment was 7,852.

CONVAIR Weekly Log

June 29, 1981

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Rexroad's Handiwork Earns Him EXCEL Citation

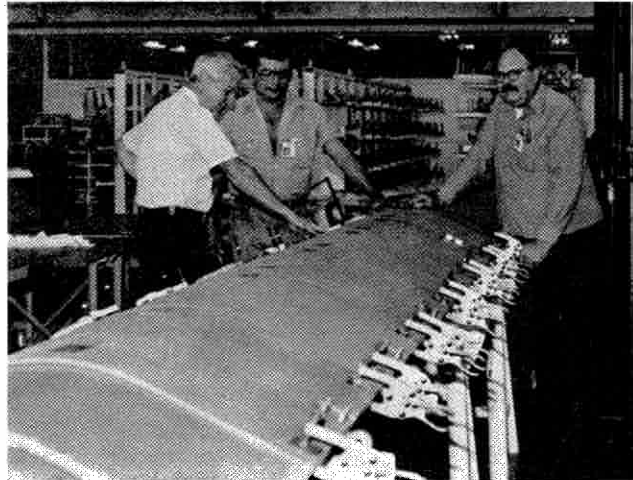
The problem: how to enlarge door openings in skins that had been installed on the torque box for a Boeing 767 strut before an engineering change was initiated. Rex Rexroad's assignment was to figure out how to rout the skins without going through the expensive, time-consuming process of first removing them from the torque box. A tool builder in Primary Tooling, Rex designed and built a special, hand-held milling tool. After making tests, he successfully hand-routed the skins in place on the torque box and then went on to salvage 12 more skins in the same way.

Above, Rex holds the EXCEL Citation award he received, along with a gift. (Higher than an EXCEL Certificate, a Citation award is given to someone who has done such an outstanding job that he or she deserves consideration as the Employee of the Year.) With him (left to right) are Bill Martin, chief of Tool Manufacturing, Mike Hersh, manager of Tool Manufacturing and Tool Engineering, and Ed Leep, general supervisor of Tool Manufacturing.

KM People Behind Tomahawk T50:1 Recognized

More than 300 persons from the Operations Department at Kearny Mesa were recently acknowledged for their support in the successful flight of Tomahawk T50:1. This Tomahawk, the first submarine launched, land attack conventional cruise missile, was completed in 13 months from start of design to delivery for flight. The people attended a gathering in the cafeteria hosted by Joe Stelmah, director of Cruise Missile Production, and Frank Thompson, director of the Sea Launched Cruise Missile Program. Rear Adm. Locke, director of the Joint Cruise Missiles Project Office, presented each person with a certificate of commendation. Those attending saw a film of the T50:1's flight.

Lindbergh Field employees who supported the program will receive their certificates in the near future.



Side-Loading Doors for TEL Near Completion

The first side-loading doors for the transporter-erector-launcher of the ground launched cruise missile system are nearing completion in the Low Rate Production Facility at Plant 19. The 20-foot-long, metal-bonded structure is wrapped with armor skins that protect the four cruise missiles stowed in the TEL from small-arms fire. During the development and production phases, close cooperation with other departments ensured that contours of the armor skins and metal-bonded door assemblies matched.

Above, Mike Vukelich of Manufacturing Engineering, Lou Caudillo and Jack Roman, both of Low Rate Production, check the work in progress.

Better Presentations

Several situations have combined to make presentations increasingly important. Television news-casts have raised the condensation of local, national, and world events to an art form. Our customers demand more and more information about us, and the higher the echelon in the customer organization, the less time there is to present the information. Presentations offer the ability to appeal simultaneously to the intellect and the emotions, and simultaneous reception of aural and visual information increases both learning and retention. The development of inexpensive projectors and viewgraphs has made slides and flipcharts obsolescent. The ability to give a good presentation has become one of the yardsticks by which professionalism is judged.

The next few issues of the Weekly Log will contain some tips for giving better presentations. Meantime, call Dewey Maltese (KM 2740), who is responsible for transferring Convair's highly successful proposal development principles to presentations. He is available to do that job for you.



Convair recently signed its largest contract so far with a minority-owned firm when it made a \$1.3 million award to Supercon of Nantick, Mass., for fabricating solenoid magnet superconducting material. Convair will use the material in producing magnets for the Mirror Fusion Test Facility (MFTF-B) at the Lawrence Livermore National Laboratory. Here, Supercon President James Wong (second from left) shakes hands with Mel Boyd (left) of Major Subcontracts. Mel and Bob Tatro (right), MFTF-B program manager, headed the Convair procurement team that awarded the contract. To Wong's left is Warren Larson, Supercon's contract administrator.

'Convairsations with Management' June 30

George Roos, director of Integrated Logistic Support, will host the next seminar in the Convairsations with Management series from 4:30 to 5:30 p.m. on June 30 at Lindbergh Field in the building 4 operations conference room. George will discuss ILS activities. Everyone who signed up is welcome to attend. Ed Squires' sessions will be rescheduled.

Effective Writing Course Begins July 14 at LF

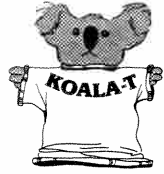
All employees are eligible for a four-week course in effective writing that begins on July 14. Doc Deane will be the instructor. Classes will be held on four consecutive Tuesdays from 4:30 to 6 p.m. at Lindbergh Field in the building 53 procurement conference room. Enrollment is limited to 30. Sponsored by the NMA Convair Chapter, the course is \$5 for members and \$10 for nonmembers. Complete the course and get a \$5 refund. To enroll, call Glenda at LF 8525.

Scholarships Awarded to Employees' Children

Ten recently graduated high school seniors, the children of General Dynamics employees, have received \$1,000 scholarships as winners in the NMA Convair Chapter's 1981 scholarship awards program. Their employee parents are Don Bacon, John Barrons, Tom Boyer, Ed Freeman, Mike Hurley, Mitsuo Ishihara, Joe Lemmo, John Sardina, Joel Selber, and Carl Wannamaker.

KOALA-T KORNER

Costly rejections occurred on a cruise missile guidance section because a drawing was misinterpreted. As a result, some of the holes in the section were mislocated. Better coordination between departments would have prevented this problem.



Tech Papers Presented in June

Mike Pouliot, Mission Analysis & Software, presented "Optimal Terminal End Game Maneuvers" on June 17 at the 1981 Joint Automatic Control Conference in Charlottesville, Virginia.

Dick O'Neill, Thermodynamics, presented "Space Structure Heating (SSQ), A Numerical Procedure for Analysis of Shadowed Space Heating of Space Structures" at the Sixteenth Thermophysics Conference of the American Institute of Aeronautics and Astronautics last week in Palo Alto. Jon Zich, of the same department, coauthored the paper.

Douglas Burleigh, Properties, last week presented "Thermal Conductivity of Polycrystalline Diamond" at the Fifteenth Carbon Conference in Philadelphia.

Vern David, Reliability & Parts Engineering, presented "Reliability and Measurability in the Factory of the Future" at the AIAA Conference on the Factory of the Future held last week in Los Angeles.

Attention, Ticket Holders for July 4 Padres Game

If you purchased a July 4 Padres ticket *with a check*, you may return it to the General Dynamics representative who sold you the ticket and that person will return the check. If you purchased a July 4 Padres ticket *with cash*, you may take it to the CRA salesbooth and get your money back. Or, you may return the ticket at the stadium, in exchange for one to a later game.

Tickets must be returned *no later than noon* on Wednesday, July 1. If you have questions, call the CRA at KM 1111.

Noon Movie Reports on Spheres for LNG Ships

A General Dynamics film, "Charleston Spheres" shows how the huge containers are manufactured in South Carolina, then barged to Massachusetts, where they are installed on the liquefied-natural-gas transport ships built by our Quincy Division.

At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Employment

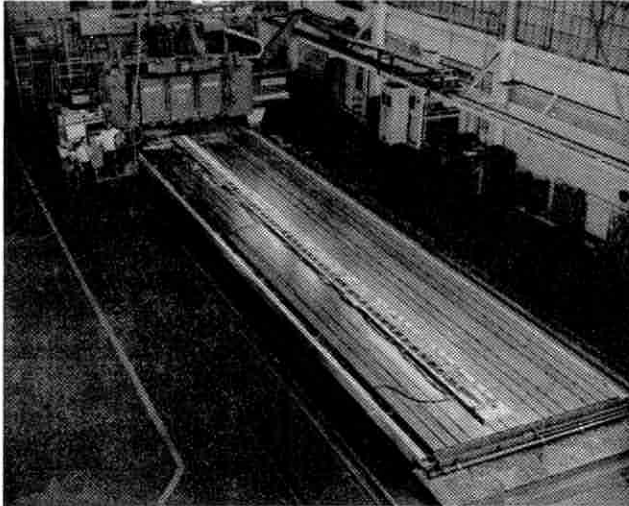
For the week ending June 21, employment was 7,901.

Over the Fourth of July weekend, you're bound to encounter Uncle Sam. Did you ever wonder where he came from? He was a meatpacker from upstate New York during the War of 1812, a man so widely liked and admired that friends called him Uncle Sam. So did the soldiers and sailors who received his familiar packing cases; they referred to his products as "Uncle Sam's beef," and the designation gradually came to be applied to all food supplies shipped to the armed forces. The first cartoons of Uncle Sam portrayed a chubby, smiling fellow, but during the Civil War he became gaunt and bearded, a caricature of Lincoln — Uncle Sam as we know him. Have a good holiday.

CONVAIR Weekly Log

July 6, 1981

Published by the Convair Division of General Dynamics



Sixty-foot length sets record.

Mid-Fuselage Parts Longest Machined at Convair

The longest parts ever machined at Convair are two longerons, each 60 feet long, for the space shuttle orbiter mid-fuselage. The raw material for each of the sill longerons weighed about 5,042 pounds and the finished parts 540 pounds . . . a metal removal of 4,502 pounds.

The part shown above is being machined on the Cincinnati CNC (computer numerically controlled) dual-gantry profile mill at Plant 19. It took three shifts a day for 14 days to complete this portion of machining.

Additional milling, to drill and bore support holes, will be done on the Mitsubishi horizontal boring mill in the Tool Manufacturing machine shop at Lindbergh Field. Some hand drilling will also be required. Because of the longerons' length, finish processing will be subcontracted.

General Dynamics Stock Plan Values for May

Here are the unit values in dollars for the corporate savings and stock investment plan as of May 31.

Salaried	1979	1980	1981
Government bonds	\$ 2.1637	\$ 2.4587	\$ 2.6052
Diversified portfolio	1.3689	1.7581	2.1840
Fixed income	—	1.0889	1.2058
Hourly			
Government bonds	2.1638	2.4564	2.6026
Diversified portfolio	1.4004	1.7932	2.2316
GD stock	\$14.4350*	\$31.6250*	\$32.0000

*Reflects 2-for-1 stock split of November 1980

The Bluesheet seeks your help in getting leads on good stories about what's going on at Convair, including items about the accomplishments of individual employees. If you have a story or an idea for one, drop a note to Jack Farnan at MZ 11-1334 or call him at KM 2256.

Today, we begin our 1981 savings bond campaign.

Effective May 1, 1981, Series EE savings bonds pay 9% when held to maturity in eight years. Intermediate yields have been increased and will range from 6% after one year to 8½% after five years. All outstanding Series E and EE savings bonds will benefit from these increases. Matured savings bonds now yield 8½%.

Recent legislation permits the Secretary of the Treasury, with the President's approval, to raise interest rates up to 1% during any six-month period. The last increase was on November 1, 1980. U.S. savings bonds have had 12 rate increases since the program's inception in 1941.

Continuing benefits of savings bonds include their exemption from state and local income taxes, the option to defer federal income taxes on accrued interest, and the low minimum purchase price of \$25.

Last year, in percent of participation among leading companies nation-wide, we began in 37th place and ended 21st. In enrollment of savers, we began in 23rd place and ended 16th.

Let's join together in making this year's campaign even more successful and confirm that we are a determined, success-oriented industrial teammate of the U.S. government.

Jo F. Buchanan

Dr. L.F. Buchanan
General Manager

Air Force Activates First GLCM Squadron

The first ground launched cruise missile unit in the U.S. Air Force was formally activated in ceremonies at Davis-Monthan Air Force Base on July 1. The new unit, the 868th Tactical Missile Training Squadron, under the command of Col. James M. Woner, will be a part of the 836 Air Division at Davis-Monthan, Brig. Gen. Robert I. McCann commanding. Ceremonies included an address by Jerry Butsko, civilian guest of honor and the Ground Launched Cruise Missile program director at Convair.

GLCM launch officers and maintenance personnel will be trained by the 868th TMTS. Formal instruction at Davis-Monthan is scheduled to begin next year. Training for government test and evaluation personnel is scheduled to start at Convair on August 31.

Voter Registration Cards Available Here

To vote in any election, you must be registered no later than 29 days before that election. If you have moved since you last registered, you must re-register. Starting today, registration cards are available at all gates of the three Convair plants, in Employee Benefits offices, and in the employee dining room.

FLIP

Last Atlas F Launches NOAA-C into Polar Orbit

Atlas 87F boosted the NOAA-C spacecraft into a 470-nautical-mile, sun-synchronous orbit on June 23. NOAA (National Oceanographic and Atmospheric Administration)-C is the fourth of ten TIROS (television, infrared observation satellite)-N meteorological satellites to be launched by Atlas E/F launch vehicles. It provides global high-resolution imagery of ice, snow, and cloud coverage and of sea and surface temperatures. Temperature and moisture profiles and environmental data from remote platforms (such as the General Dynamics-built buoys) are collected and retransmitted to the NOAA National Weather Service.

87F was the last of the Atlas Fs retired from operational status to be used for space launches. It was originally delivered to the Air Force in March 1963; work on the vehicle under the Vandenberg modification program (VAMP) was completed in May 1979. (Twenty-two Atlas Es remain in Air Force inventory.)

Concerning the successful launch of NOAA-C, Atlas Program Director Ben Wier received the following message from TIROS Project Manager Gerald Longanecker:

"I want to thank you and your fine team for the excellent ride given our NOAA-C spacecraft. The entire vehicle operation was as smooth as any I've seen. The spacecraft is doing fine, and I look forward to working with you and the Atlas team on our next launch in early 1982."



'Education with Industry' Sparks Two-Way Honors

Dr. Buchanan last week presented graduation certificates to Lt. Col. Robert D. Taylor and Capt. Alvin W. Finn, the two Air Force officers who have been with us since last September in the Education with Industry program sponsored by the Air Force Institute of Technology. This was the 24th year that Convair has participated in the program. Above, Lt. Col. Taylor presents Dr. Buchanan with a certificate of appreciation from the Air Force in recognition of Convair's 24 years of participation.

Classes Set for Swimmers, Scuba Divers

A meeting to organize swimming classes will be held on July 6 at 4:30 p.m. The next scuba classes will start July 20. Call Carol (KM 2232) for details.

Management Seminar Offered to All Employees

"Communication Skills" is the third seminar in the First-Line Supervisor program offered by the NMA Convair Chapter. At Kearny Mesa, the seven-session course will start on July 14 at 4:30 p.m. in building 5, mockup conference room A. At Lindbergh Field, it will start on July 20 at 4:30 p.m. in building 4, Boeing conference room. The fee is \$10 for members (refundable on course completion) and \$14 for nonmembers. To enroll, call Randy Torres at KM 1809.

Safety Awards Presented to Convair's ETR People

Convair operations at the Eastern Test Range earned two safety awards in the annual Kennedy Space Center Contractor Safety Awards. The awards were made by NASA Center Director Dick Smith in a ceremony last May. We received the Safety Award of Distinction for having a lost-time-injury frequency rate and a vehicle-accident-frequency rate lower than the mean average of participants and also received an Accident Prevention certificate for no lost-time injuries in 1980.

Next 'Convairsation with Management' on July 9

John Silverstein, director of Quality Assurance, will host the next two "Convairsations with Management." He will discuss Convair's quality assurance objectives and operations. The first seminar will be held on Thursday, July 9, at Kearny Mesa in building 5, mockup conference room A. His second will be at Lindbergh Field on Tuesday, July 14, in building 4, operations conference room. Both sessions will be from 4:30 to 5:30 p.m. All who signed up are welcome. Reminder: the July 7 seminar with Ed Squires has been postponed.

Luau Dinner Dance Set for Saturday, June 11

The Town & Country Convention Center is the scene for this year's luau dinner dance sponsored by the NMA Convair Chapter. The June 11 event will begin with a happy hour at 5:30 p.m. Hawaiian dancers will entertain during the polynesian dinner, and do-it-yourself dancing to the music of Bill Green's orchestra will follow. All NMACC member reps have tickets (\$15 per person for members and \$17.50 for nonmembers).

Join Puerto Vallarta Trip for Labor Day Weekend

The price for the Puerto Vallarta trip September 3-8 sponsored by the NMA Convair Chapter is \$385 per person double occupancy. That includes five nights in the air-conditioned Hotel de Aqua, on the beach and within walking distance of downtown. The package also provides the bus to and from Convair and the Tijuana airport, as well as ground transportation, baggage handling, and tips in Puerto Vallarta. Call Shirley Nowlin at KM 1163.

Noon Movie Takes a Look at Oil Exploration

"The Vital Search," an Exxon film, shows workers from roughnecks to helicopter pilots searching for oil in remote jungles and under stormy seas.

At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Employment

For the week ending June 28, employment was 7,921.

CONVAIR Weekly Log

July 13, 1981

Published by the Convair Division of General Dynamics

Savings Bonds Now Pay 9%

Personal security for families and financial stability for our country: seldom are two such important goals served so well by a single program — purchasing U.S. savings bonds through the Payroll Savings Program.

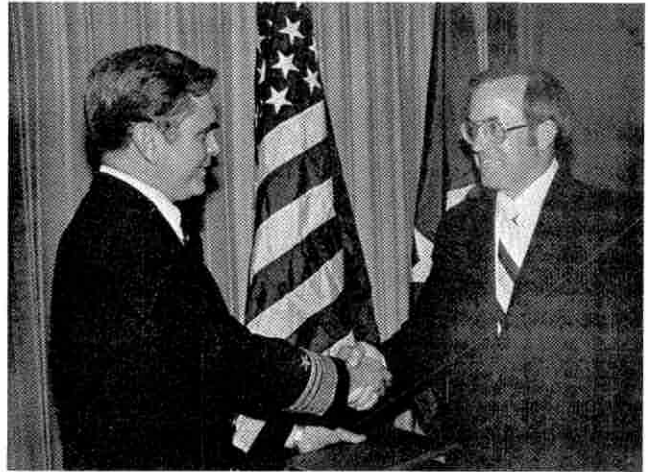
Participating employees have found that their regular paycheck allocation quickly adds up to substantial amounts through this easy, systematic way of saving. For most savers, savings bonds are their only tax-favored investment; earnings are exempt from state and local taxes. Any federal income tax may be deferred until bonds are redeemed — often until an individual's retirement years, when tax brackets are usually lower.

The best news of all for many is that U.S. savings bonds now pay 9% interest when held to maturity.

Enroll Next Week for Convair Inplant Courses

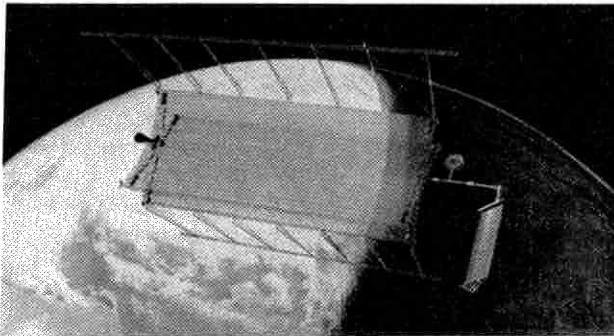
Registration will be next week for the fall semester of inplant courses offered by Educational Services in cooperation with the San Diego Community Colleges.

At Kearny Mesa, registration will be in the lobby, building 2, on Tuesday, July 21, from 2 to 5 p.m. At Lindbergh Field, registration will be in classroom 2-1, building 2, on Wednesday, July 22, from 2 to 5 p.m.



Dr. Merle Aleshire, manager of IRAD B&P (Independent Research & Development Bidding & Proposals), was recently awarded a Navy commendation for his contribution to antisubmarine warfare. Dr. Aleshire directed a number of nationwide scientific teams in the research and development of antisubmarine weapons and fire control systems for the Navy. Above, Vice Admiral Kinnaird R. McKee, director of Naval Warfare, makes the presentation in a recent ceremony at the Pentagon.

a report on work in progress at Convair: THE SPACE-BASED RADAR PROGRAM



An early space-based radar might look like this.

Imagination tempered by a knowledge of what works shapes the ideas of Space Programs engineers at Convair who are developing concepts and technologies for space-based radar (SBR).

Their work is important, because today's network of ground-based surveillance radars, known as the distant early warning (DEW) line, will eventually become ineffective against the evolving threat. Extensive coverage could be provided by a radar system operating from the vantage point of space.

Why isn't radar already used for surveillance from space? Chiefly because of the vast distances over which radar beams from space must travel. Since the range for SBR is much greater than for ground-based radar, either a very large antenna or very high power must be used. On the basis of cost and effectiveness, a space antenna is clearly better than one on the ground. Until

now, though, no one's been able to solve SBR's weight and packaging problems.

One Convair design for an early space-based radar system (see picture) features back-to-back, geodetic-truss expandable antennas, each about 150 feet long and 50 feet tall. The highly reliable, Convair-developed geodetic truss used in this design has achieved a level of maturity that makes it attractive for use in a near-term SBR program.

Convair studies show that a "constellation" of SBR satellites can be placed in orbit by the late 1980s. Under this concept, the space shuttle places each SBR spacecraft in a low earth orbit using the spacecraft's on-board propulsion system. Each spacecraft is removed from the shuttle orbiter's payload bay, deployed, and given a final functional check by orbiter crew members before its ascent to final orbit.

Through the use of on-orbit assembly techniques, Convair's geodetic-truss technology can accommodate requirements for antennas to about 100 meters in length.

We're also evaluating subsystems for improved space-based radar performance. They include advanced solar-power concentrators, a better power management and distribution system, an onboard radar preprocessor, advanced communication antennas, a deployable radar feed system, a single-layer membrane lens for phased-array radars, and a low-thrust propulsion system for transferring an SBR from one orbit to another.

DC-10 Fuselage Delivered

DC-10 fuselage 377 was delivered on schedule McDonnell Douglas on June 30.

The What and Why of Special Test Equipment

The Property Administration Group, which is responsible for Special Test Equipment (STE) at Convair, gets a lot of questions about what sort of equipment falls into the formal category of STE and why. Here's some information they supply on the subject:

Special Test Equipment (STE) is equipment specifically designed to perform laboratory, development, and/or production tests for components, subsystems, or systems of a deliverable product such as a cruise missile or the Atlas. STE can be electrical, mechanical, hydraulic, pneumatic, or combinations thereof. In many cases, the STE may be designed around commercially available equipment such as minicomputers or measurement, recording, and power source devices. STE is government-funded and requires specific contractual or other written approval before design, parts procurement, and fabrication starts. Always check with the STE Control Center (KM 6008) to ensure that your STE is authorized before taking any action to fabricate such equipment.

Tupperware Is Better Off at Home. Likewise Avon

Not that there's anything wrong with these or similar articles. A problem arises, though, when employees try to bring articles into the plant for sale or distribution. Because that runs counter to company policy, guards have to hold such items until the owner-employee gets off work. Or the employee gets to work late because he or she had to take time to return the stuff to the car. Either way, it's a losing proposition. Plant Protection (KM 1898) can answer questions about what may be brought into the plant and what is better left at home.

Bus Pool for El Cajon-Lindbergh Riders Expanding

Special bus service from El Cajon to the Lindbergh Field plant and Plant 19 for first-shift employees is now expanding. A third bus will be added if just a few more riders can be located. This express system, a private enterprise not affiliated with General Dynamics, offers an opportunity to beat traffic, parking, and gasoline problems, and to provide a car for the spouse, as well.

The yellow school bus, "Paul's Line," leaves El Cajon near the Parkway Plaza shopping center at 6:10 a.m. It stops at LF gates 1 and 2 and at Plant 19 gate 23 so that employees arrive at both stops before 7 a.m. The return trip starts from LF at 3:40 p.m., stops at Plant 19, and then goes directly back to El Cajon.

Cost depends on the number of passengers, as it does in a car pool. For information and sign-up, call Bruce Smith at 579-5236 between 5 and 9 p.m.

Two Trips for Fall

Both these trips, sponsored by the NMA Convair Chapter, are open to all employees.

Grand Canyon, Lake Havasu Trip Sept. 23-27. Explore the south rim of the Grand Canyon, see the London Bridge at Lake Havasu City, and take a river cruise to Laughlin (a mini Las Vegas) during the five-day, four-night trip via air-conditioned bus that leaves September 23 and returns the evening of the 27th. The cost is \$140 per per-

son. Reserve with Bill Kramer (KM 2855) by July 31. A deposit of \$25 is required.

Las Vegas Weekend Oct. 2-4. You stay at the new Sundance Hotel & Casino downtown. The price of \$180 per couple also includes transportation, refreshments, and prizes. Reserve with Sue Saussol (KM 1045) by August 7. A deposit of \$25 is required.

Last Call for the Picnic

Our annual picnic in Missile Park is this coming Sunday, July 19. Alert your family, get your gear together, and plan to be there when the gates open at 10 a.m.

Have your Employees Drawing tab card (the one you received at work) at the ready so that you can enter your youngsters in the children's or youth's drawings, and deposit your card for the big cash giveaway. Also added to the Employees Drawing prize list is a black-and-white portable TV set donated by AutoLand.

Don't forget to purchase (and bring with you) your chicken dinner box lunch tickets. Remember, no lunch tickets will be sold at the park. Employee Benefits, CRA, and NMA Convair Chapter boosters have them for sale now. Stock up on Special Drawing tickets for the 1981 Ford Escort, the 35mm camera, or the CB radio. Bring a blanket or a card table; picnic tables will fill quickly. Leave your cares at home and come prepared to have a happy, fun-filled day.

'Conversations with Management' This Week

This is a reminder that John Silverstein, director of Quality Assurance, will host discussions on Convair's quality assurance at Lindbergh Field on July 14 in the building 4 operations conference room. John Waszczak, director of Planning, will hold seminars covering our planning operations and objectives. Waszczak will be at Kearny Mesa on July 16 in the building 5 mockup conference room A and then at Lindbergh Field on July 21 in the building 4 operations conference room.

From the CRA

Jamaican Golf Tour. Reservations for the Jamaican CRA Golf Club tour, October 5-12, are still available. Call Bill Minando at KM 1511.

Adult Fitness Class Near Lindbergh. Convenient for Lindbergh Field employees, an adult fitness class will be held in Mission Bay on Tuesdays and Thursdays for four weeks, starting July 14. The class will meet from 4:45 to 5:30 p.m. The fee is \$25, but the July 14 class is free. Call Ann Williams at KM 1111.

Free Shape-Up Class July 15. Try a free Shape-Up class: Wednesday, July 15, at 4:40 p.m. in Missile Park.

B-58's Bombing Tactics Shown in Noon Movie

The Fort Worth Division's B-58 *Hustler* bomber set 19 world records in the 1960s when this General Dynamics film was made. In "Tall Man Five Five," Chet Huntley narrates as the U.S. Air Defense Command puts the plane through its paces during simulated bombing runs.

At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

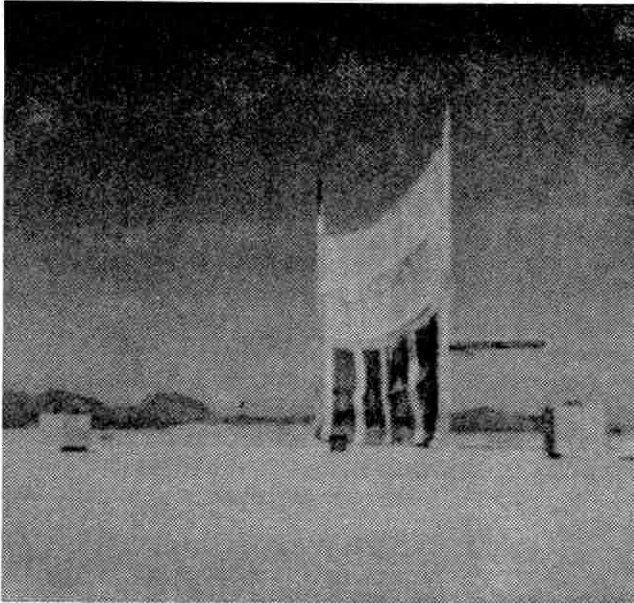
Employment

For the week ending July 5, employment was 7,916.

CONVAIR Weekly Log

July 20, 1981

Published by the Convair Division of General Dynamics



Land Attack Tomahawk Makes First Target Hit

Tomahawk T51 successfully completed the first planned land attack target hit and second submarine launched conventional land attack mission on July 10. The test was conducted from the Pacific Missile Test Center Sea Test Range, Point Mugu, California, to the Tonopah Test Range in Nevada.

In the test, which was under the direction of the Joint Cruise Missiles Project Office, the missile was launched from the torpedo tube of the submerged submarine, USS *Guitarro*, broached the surface of the water, and transitioned to cruise flight.

Powered by its air-breathing turbofan engine, the missile navigated a complex mission over water to land-fall and flew a fully guided land attack mission to the target area approximately 300 miles from the launch point. Once inside the Nellis Range complex in Nevada, the Tomahawk demonstrated its precision terminal accuracy using the digital scene matching area correlation (DSMAC) guidance system and a programmed terminal maneuver to impact a ground target on the Tonopah Test Range.

The July 10 flight was the third time that the required high accuracy was achieved by using the Navy-developed DSMAC terminal update guidance system. DSMAC supplements the terrain contour matching (TERCOM) system, which guided the Tomahawk missile to its designated location. The first successful flights using DSMAC were conducted on February 15, 1981, when a Tomahawk was launched from a Navy A-6 aircraft, and on March 28, 1981, when the missile was launched from a submarine and flew a land attack mission from the Pacific to the Tonopah Test Range.

Saving has always been a must for anyone who is looking for a secure future. Just knowing that there's a bit of money set aside takes away worries and lets you look ahead with confidence. And saving instead of spending is one way each of us can help fight inflation — particularly when you choose to save with United States savings bonds, which now pay 9 percent interest. So sign up under the Payroll Savings Plan. If you're already signed up, consider increasing your rate of saving.



Augie Daddi, director of Industrial Relations, receives the plaque from Debbie Syverson of the Blood Bank. Helen Grant, supervisor of Medical Services, and Ray Mendoza, manager of Employee Benefits & Security, were also on hand for the presentation.

Donor Generosity Earns Us Blood Bank Plaque

In 1980, our donations were up 39 percent over the previous year and a huge 88 percent over 1975. Numbers like that look good to Wall Street and even better to the community of San Diego, where increased open-heart and general surgery has boosted blood use 20 percent a year. The San Diego Blood Bank recently awarded a plaque to Convair in appreciation of our growing contributions. In making the presentation, Blood Bank representative Debbie Syverson extended thanks especially for the 1,187 pints of blood that Convair employees donated in 1980.

Special note: Because of the catastrophic fire at the Blood Bank earlier this month, employees are urged to show the same generosity they have in the past and donate blood now at the Town & Country garage, which is open seven days a week. Call the Blood Bank at 296-6393.

Better Presentations

Here's some more advice from Dewey Maltese of Presentation Development.

The purpose of a presentation is to get a predetermined response from the audience. The key is to ask the correct question: "What do I want the audience to say 'yes' to and what's in it for them?"

If you ask the question "What's in it for me?" you shift the focus away from what we're selling — the benefits of our product to the audience. To be sure your presentation is really for the direct benefit of the audience, get the thinking up front:

- Hold a kickoff meeting
- Analyze the audience
- Point out the significance of your data
- Prove all your claims
- Test the presentation with your peers

For personal help with your presentations, call Dewey at KM 2740.

'Conversations with Management' July 23, 28

All employees are encouraged to attend the following "Conversations with Management" seminars. They will be held from 4:30 to 5:30 p.m.

Ed Squires, vice president - Production, will host discussions on Convair operations, planning, and objectives at Kearny Mesa on Thursday, July 23, in the building 5 mockup conference room; and at Lindbergh Field on Tuesday, July 28, in the building 4 operations conference room.

Reminder: John Wasczak, director - Planning, will host a seminar at Lindbergh Field on July 21 in the building 4 operations conference room. The topic will be Convair planning operations and objectives.

CPR Course at Kearny July 29, 30

A two-evening course for certification in cardiopulmonary resuscitation is being offered to all employees, their families and friends. Convair fireman Joe Harrison will be the instructor. The course is limited to 50 and a heavy demand is expected, so please sign up only if you are sure to attend. The course will be held on

KOALA-T KORNER

If you don't have time to take all the steps a task requires, you surely won't have time to fix the unacceptable material you produce. Follow every step as specified to ensure that you turn out a high-quality product. Do it right the first time.



July 29 and 30 from 5 to 9 p.m. in the presentation room, second floor of building 2 (main lobby) at Kearny Mesa. You must attend both sessions to receive CPR certification.

To reserve, call Marion Tuesday or Thursday at KM 1778 or Monday, Wednesday, or Friday at LF 5667. Free refreshments will be provided by the sponsor, the NMA Convair Chapter.

Pioneering Convair Aircraft in Noon Movies

Two films this week. "The Supersonic Wedge" documents Convair's XF-92A, the world's first delta-wing aircraft, first flown in 1948, and the aircraft based on its design: the ill-fated Sea Dart and Pogo and the highly successful F-102. "The New Sound of Freedom" shows the activities of the Air Defense Command in the 1950s. Their main weapon was the Convair F-102A.

At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Bowman to Speak at Fleet Theater on Space Day

Dr. Robert Bowman, program manager for Geostationary Platforms, will speak on the topic "Our Future in Space" as part of Space Day activities on July 20 marking the anniversary of Neil Armstrong's walk on the moon in 1969. Bowman's talk will be at 7:30 p.m. in the Reuben H. Fleet Space Theater in Balboa Park.

DC-10 Fuselage Delivered

DC-10 fuselage 378 was delivered on schedule to McDonnell Douglas on July 14.

Employment

For the week ending July 12, employment was 7,942.

A report on work in progress: THE PREPROTOTYPE MAGNET SYSTEM

We delivered our first superconducting magnet for the Preprototype Magnet System to the TRW facility in Redondo Beach on May 28. The supporting systems previously installed in the facility are now connected to the cryostat of the 44-ton magnet.

The refrigeration system provides liquid helium to cool the magnet windings to 4K (-453F). The vacuum system evacuates the air from the space between the helium vessel and vacuum vessel; it's like making a giant thermos bottle. The control and protection system senses voltage, current, temperature, and stress inside the magnet and provides data displays and controls to the operator. The power supply provides power to the coil windings.

The first major operation was to evacuate the space between the helium vessel, which contains the coil windings, and the vacuum vessel. There were no demonstrated leaks in our vessels and on-

ly a few stubborn leaks in the external piping and valves.

The second major operation involves cooling the windings inside the helium vessel from room temperature down to 4K. The mass of material to be cooled is 32 tons. The cooldown must be done slowly and uniformly to prevent structural damage from thermal stresses. The 25-foot-long helium vessel shrinks almost one inch during cooldown.

Our program manager, Greg Danninger, and chief engineer, Dave Walker, are working 12-hour shifts during the cooldown to provide round-the-clock coverage during this important operation. Cooldown is progressing at about 1.5 degrees per hour and should be completed this week.

Things to come after cooldown are charging the magnet, mapping the magnetic field, and beginning operation of the isotope separation system.

CONVAIR Weekly Log

July 27, 1981

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Salvage Yard Sale at Lindbergh Field Aug. 1

Desks, chairs, and building materials will be among items offered in the Lindbergh Field salvage yard sale on Saturday, August 1, from 8 a.m. to noon. Use the Washington Street entrance. Remember to bring proof of employment and to wear hard-soled shoes. Persons accompanying employees must be 15 or older.

Boost-Glide Missile Study to Start

Under a \$285,000 contract from the Air Force Wright Aeronautical Laboratory, we will study the boost-glide missile as an alternative to the ballistic missile and will define the technology requirements for boost-glide missiles in the 1990s. The Ballistic Missile Group, part of the Advanced Strategic Missile organization, will carry out the study. The group is headed by Dr. Anton Simson. John Rausch will be the study leader.

Laura Autio Wins Junior World Golf Title

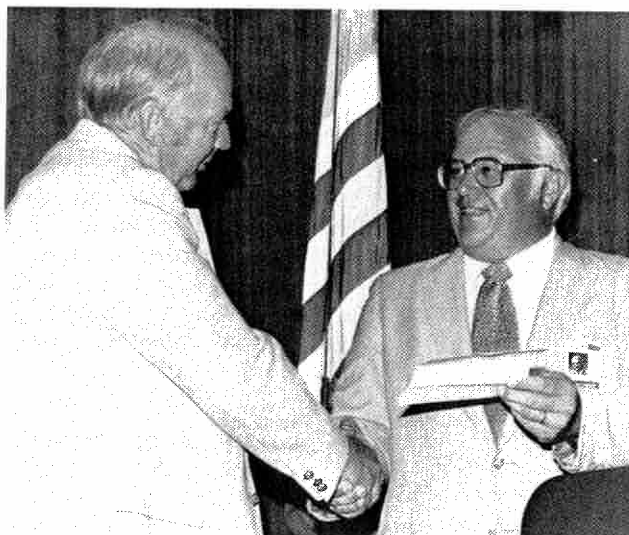
Twelve-year-old Laura Autio, daughter of Convair photographer Pete Autio, was the winner in the girls' 11-12 age division of the Junior World Golf Tournament held last week in San Diego on the Mission Bay golf course. Her combined score for three games was 186 (six below par). The 35 golfers in her division were from this country, Europe, and the Far East. "Once in a while, on a good day, I can still beat her," says Pete, who was Laura's first instructor.



And the winner is . . . Chuck Cline, a security guard at Plant 19, won the 1981 Ford Escort, top drawing prize at the Family Fun Day picnic on July 19. Hoping for a free ride are Steve Woolley (left), supervisor of Employee Services, George Heller, NMA Convair Chapter president, and Lou Imbimbo, picnic chairman.

Three Aboard for the Caribbean

Shirley Nowlin (KM 1163) reports that three accommodations remain for the seven-day Caribbean cruise in October. Two outside cabins are \$2,440 each per couple and an inside cabin is \$2,286. The NMA Convair Chapter is sponsoring the cruise.



Dr. Buchanan made the presentation at the general manager's meeting for supervisors held last Thursday. Here, as part of the award, he presents Roy with a merchandise certificate under a new General Dynamics recognition program to reward employees for outstanding work.

Roy Gjertson Named Employee of the Year

Roy Gjertson, illustrator, designer, and exhibits coordinator in Art & Editorial (102-2), has received the 1980 General Manager's award as Employee of the Year. Since he joined Convair in 1969, his illustrations for company product lines and programs have made substantial contributions to the worldwide reputation of General Dynamics. Corporate projects on which he has worked include publications and major exhibits. For the Paris Air Show last June, he worked both here and in Paris, designing and then supervising construction and installation of the General Dynamics cruise missile exhibit.

His other work includes illustrations for children's books and the design of two U.S. postage stamps: the Gettysburg civil war centennial stamp, issued in 1965, and the NASA Mariner 10 stamp, issued in 1973. Before joining Convair, he worked for Northrop, North American Rockwell, and McDonnell Douglas.

Gjertson's art studies include work at the Art Center and Chouinard School in Los Angeles. Born in Lambert, Minn., he now resides at Scripps Miramar with his wife and daughter. An older son also lives in San Diego.

Data Systems Services Elevated to Division Status

General Dynamics has named Mel Barlow vice president and general manager of its new Data Systems Division, which will include all elements of the former Data Systems Services organization.

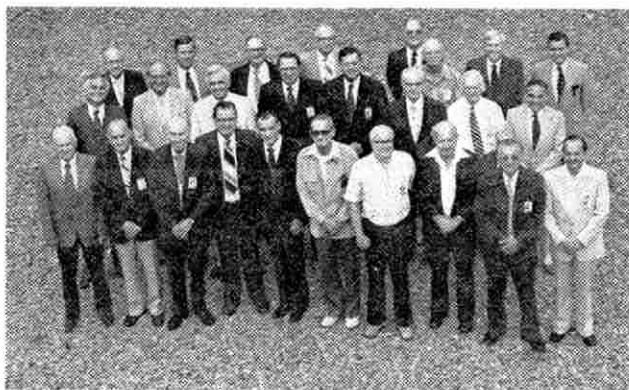
Barlow joined General Dynamics in 1955, as a flight test engineer at Convair. In 1972, he transferred to the

Pomona Division. He has been corporate director of Data Systems Services since 1975, shortly after General Dynamics began to consolidate all the data processing functions within the company.

David Lewis, General Dynamics chairman and chief executive officer, said elevation of Data Systems to divisional status is clear recognition of the importance of its services to the success of the corporation. The Data Systems Division will consist of the existing Western Data Systems Center here at Convair, along with the centers in Fort Worth and Norwalk, Conn., and the headquarters office in St. Louis.

Please Do Not Feed the Animals

We have a population within our factories of wild rabbits, ground squirrels, and stray cats. They can be dangerous. Do not handle or feed any of these animals. If you discover one in your work area, call the Fire Department (KM 1555 or LF 4555); they will use all proper precautions to remove the animal. For your own safety, call them.



Breakfast of Champions

Above are the recent champs in the years-at-Convair category. They've just been honored at a breakfast also attended by division staff members Russ Babcock, Dan Da Pra, Jay Hawley, George Roos, John Silverstein, and Ed Squires. Alphabetically, the long-timers are:

	Years
Dave Arnott	40
George Bailey	40
Joe Berardini	40
Stanley Berling	35
Edward Booth	40
John Cicalo	40
Francis Cook	40
Robert Damschroeder	40
Amedeo D. Ercole	40
Robert Goldinger	35
George Kline, Jr.	40
Mauro Lopez	40
Olna McGraw	40
Joseph Ottoman	40
Orville Priest	40
Floyd Reed	40
Ray Schmieder	40
Lee Stamper	40
Henry Stroing	40
John Struthers	40
Maston Thomas, Jr.	40
Raymond Walling, Jr.	40
Reynaldo Yturralde	40

Better Presentations

Here are more thoughts on presentations from Dewey Maltese of Presentation Development.

A presentation audience is a group of people who for a brief time agree to be one. This agreement implies that the audience members are the peers of the presenter in all ways except one: level of knowledge of the presentation's subject. The presenter must prove this higher level of knowledge by designing a spoken message cued by reinforcing visuals.

This message has to go through a series of reviews. A presentation's predesign review is a storyboard review. Here, rough drafts of the viewgraphs are pinned on a conference room wall, and their sequence, number, and content are challenged and changed by management. Final design review is the Red Team.

Through reviews and practice, the presenter finally "owns" the presentation. Presenters must practice; it's better if they do so before they stand in front of their final audience.

For personal help with your presentations, call Dewey at KM 2740.

Autumn Trips Open to All

Both these trips are sponsored by the NMA Convair Chapter.

Grand Canyon, Lake Havasu Sept. 23-27. The price is \$140 per person for five days and four nights. Reserve with Bill Kramer (KM 2855) by July 31. A deposit of \$25 is required.

Las Vegas Weekend Oct. 2-4. The price of \$180 per person includes accommodations at the Sundance Casino & Hotel, transportation, and extras. Reserve with Sue Saussol (KM 6591) by August 7. A deposit of \$25 is required.

From the CRA

New Salesbooth Hours Start Today. Kearny Mesa: Mon.-Fri., 9 a.m.-1 p.m. and 2-5 p.m. Lindbergh Field: Tues. and Thurs., 8 a.m.-1 p.m. and 1:30-4 p.m.

See 'Pageant of the Masters' in Aug. See the pageant at the Laguna Art Festival on August 21 (\$25) or 27 (\$23). (The trip on August 29 is sold out.) The price includes transportation, a box lunch with wine, and reserved seating. Tickets are available only at CRA Travel (call KM 1111).

NO SHOWINGS AT LINDBERGH

Noon Movie Is About Birds of Prey

"Silver Wires, Golden Wings" shows how electric utilities are protecting the lives of golden eagles and other birds of prey. Special nesting platforms installed on transmission towers lure birds away from alighting on power lines and being electrocuted.

Showings will be at Kearny Mesa only, on Wednesday in classroom 3 of building 17 at 11 a.m. and noon.

Employment

For the week ending July 19, employment was 7,978.

CONVAIR Weekly Log

August 3, 1981

Published by the Convair Division of General Dynamics

Patents Issued to Convair Engineers

A U.S. patent was recently issued to Richard Brand, senior scientist in Materials & Process Engineering, for a method of crosslinking thermoplastic polymers. A superconducting magnet coil for use in fusion power reactors is the subject of the patent issued to two engineers in Energy Systems: John Burgeson, a design specialist, and Dennis Lieurance, chief engineer on the superconducting magnet we manufactured and recently shipped to TRW.

DC-10 Fuselage Delivered

DC-10 fuselage 379 was delivered to McDonnell Douglas on July 30.

How to display your badge properly: wear it chest high on the left side of your garment. Be sure to wear it at all times.

'Effective Presentations' Class Begins Aug. 13

Effective Presentations, a new class conducted by Presentation Development Specialist Dewey Maltese, will combine theory and practice in a learning atmosphere of support and acceptance. The eight-week course will be held on consecutive Thursdays, beginning August 13, from 4:30 to 6:30 p.m. Classes will be held at Kearny Mesa in the LVP conference room, building 26.

The series is being sponsored by the NMA Convair Chapter. There will be a fee of \$10 for members (refundable on course completion) and \$14 for nonmembers. The course will be limited to 18 persons. To register, call Gary Kranz (KM 1937) or Michael Brownstein (KM 1033).

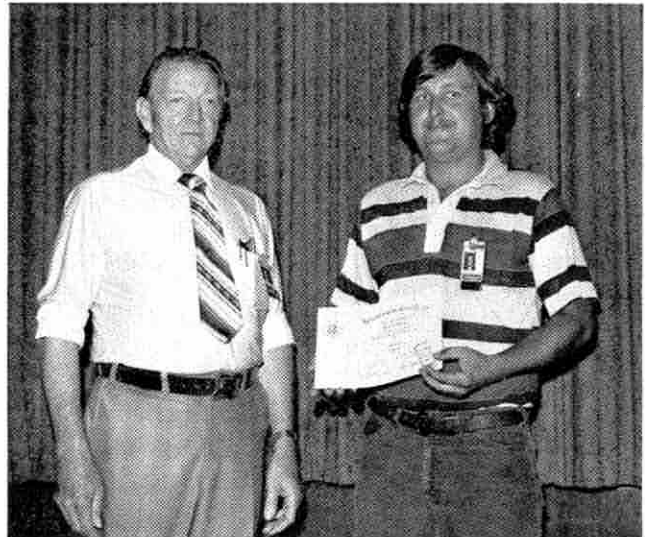
Certified Manager Course Starts Aug. 19

The "Administrative Skills for the Manager" course is one of three to be offered that will help you prepare for the Certified Manager exams. This seminar, based on discussion, reading, and case study, will cover planning, decision making, staffing, and control. The facilitator will be Ted Parsons, a Certified Manager. Seminar sponsor is the NMA Convair Chapter.

The course will be held from 4:30 to 6:30 p.m. on six Wednesdays starting August 19 at Lindbergh Field in the 767 strut conference room (mezzanine of building 4). The cost is \$10 for NMA members (refundable upon course completion) and \$14 for nonmembers. Enrollment is limited to 20 persons. Register with Ted at LF 8653.

Tour Main Post Office Aug. 26

A one-hour tour of the main post office, on Midway Drive, will begin at 6 p.m. on Wednesday, August 26. The tour is limited to the first 30 people who register. Call Jan Lawrence at KM 1108 or 3324. The NMA Convair Chapter is sponsoring the event.



Strang (right) receives his Journeyman Certificate and graduation pin from George Carroll, superintendent of the Machine Shop.

Noel Strang Completes Courses, Gets Patent

Noel Strang, a layout machinist in the Machine Shop (Dept. 015), is now classified as a Journeyman Machinist after completing Convair's four-year apprenticeship program. In addition, he recently received an Associate of Science degree from San Diego City College. There's more. His achievements to date also include getting a patent for a device to assist machinists in clamping odd-shaped parts. Nice going, Noel.

Anyone interested in the various apprenticeship programs at Convair should call Wayne Turner at LF 8564.

Cushman Dow Commencement Speaker at NU

Convair General Counsel Cushman Dow was commencement speaker at National University in Mission Valley on July 26. In his talk on American business and the free enterprise system, he stressed the need for a reduction in government regulation of business. As part of commencement day ceremonies, National University conferred a Doctor of Humane Letters honorary degree on Mr. Dow.

Two Trips for Fall

Both these trips are sponsored by the NMA Convair Chapter.

Las Vegas \$180 per Couple. Spend the weekend of October 2-4 in Las Vegas for \$180 per couple. That includes accommodations, transportation, and extras. Reserve with Sue Saussol (KM 6591) by August 7. A deposit of \$25 is required.

Grand Canyon, Lake Havasu, Sept. 23-27. The price is \$140 per person for five days and four nights. Reserve with Bill Kramer (KM 2855) by August 7. A deposit of \$25 is required.

NO SHOWINGS AT LINDBERGH

Noon Movie Deals with Highway Hazards

"Booby Trap" shows how such highway hazards as bridge abutments and guard rails can turn minor accidents into disasters. Remedies are suggested. The LF projectionist is on vacation, so showings this week will be at Kearny Mesa only: on Wednesday in classroom 3 of building 7 at 11 a.m. and noon.

From the CRA

Silkscreening Workshop Aug. 11, 18. Learn how to silkscreen T-shirts, bumper stickers, anything, in a two-part silkscreening workshop at the CRA clubhouse on Tuesdays, August 11 and 18, from 4:30 to 6:30 p.m. The fee is \$15. Register with Ann Williams at KM 1111.

KOALA-T KORNER

In several instances, individuals conducting tests have discovered an error in the test procedure they were following. They did the right thing in then deviating from the procedure to make the test successful.

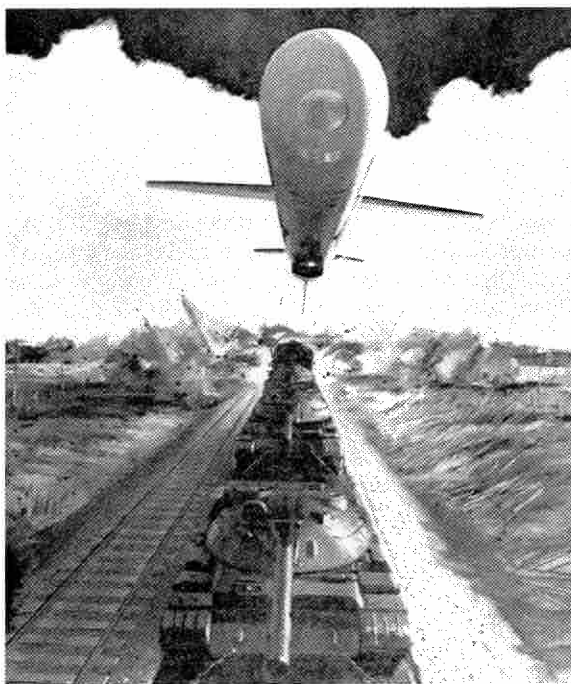
Possible problem: not correcting the procedure so that the same potential error is avoided in future testing. Conclusion: make the test conform to the procedure — or make the procedure conform to the test.



Employment

For the week ending July 26, employment was 7,998.

A report on work in progress at Convair: THE BACKBREAKER/OPTIONBREAKER PROGRAM



One purpose of the program is to develop concepts for a cruise missile that will be an effective weapon against moving targets.

We are conducting two studies that will provide the basis for expanding the applications of our cruise missile product line. The studies are being jointly funded by the Defense Advanced Research Project Agency and the Air Force Armament Laboratory. Together, the studies are called the Backbreaker/Optionbreaker program.

The purpose of the Concept Feasibility and the

Guidance Sensor studies is to give tactical conventional cruise missiles the capability of attacking multiple mobile and fixed targets, to allow more flexible mission planning, and to increase missile survivability. The new guidance and submunition concepts evolved will provide our cruise missiles with the capability required to address many new tactical mission areas of interest to the Air Force, Navy, and Army.

Our design for the new guidance system will include the sensor, algorithms, and processor. A carbon-dioxide-laser radar sensor will provide data for autonomous, real-time image processing. The guidance algorithms (software) imbedded in the real-time, high-speed processor will provide commands and target location/classification for enroute and terminal guidance, along with automatic fire control. We are also formulating new munitions-dispensing techniques in the current phase of the program. The dispensers will be built in the follow-on phase, to begin next year.

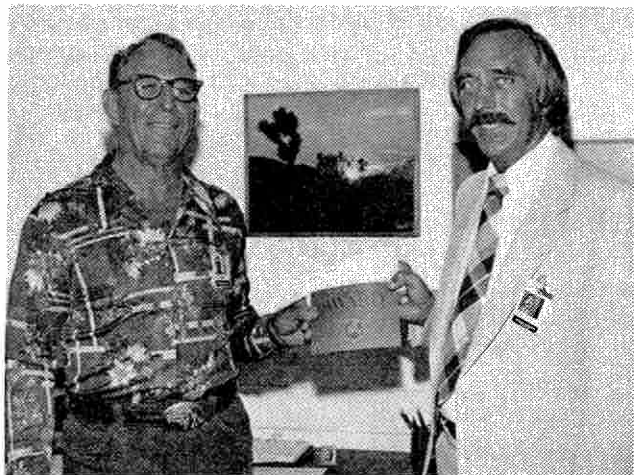
The program plan calls for captive tests of the guidance and dispenser subsystems in 1984 and free-flight demonstrations in 1986 on our Mid-course Guidance Demonstration vehicle.

The Backbreaker/Optionbreaker program is an outgrowth of several projects Convair has conducted over the past few years, such as the Advanced Conventional Standoff Missile and Roadrunner studies. The Backbreaker/Optionbreaker program combines the technology development work being done in the Advanced Programs Department, the Low-Level Queued Dispenser program, and the Digital Integrating Subsystem program.

CONVAIR Weekly Log

August 10, 1981

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Lowell Bramwell (left) had an idea for eliminating duplication of material-verification paperwork in Fabrication Inspection, where he works. It paid off for him and the company. Here, he receives an Employee Suggestion award and check from Ken McCafferty, chief of Quality Control.

Three CPR Courses Offered in September

To complete cardiopulmonary resuscitation training or qualify for recertification, you must attend both sessions of a CPR course. Each course will be limited to 50 people, and demand will be heavy. Please sign up only if you are sure you can attend. Call Marion Campbell at LF 5667 (MWF) or KM 1778 (TTh).

Course 7 at Kearny Mesa

Wednesday, September 2	5-9 p.m.	Building 2 presentation
Thursday, September 3	5-9 p.m.	room (second floor)

Course 8 at Kearny Mesa

Wednesday, September 16	5-9 p.m.	Building 2 presentation
Thursday, September 17	5-9 p.m.	room

Course 9 at Lindbergh Field

This course has been scheduled especially for second- and third-shift workers.

Saturday, September 5	9 a.m.- 1 p.m.	Building 14, auditorium
Saturday, September 12	9 a.m.- 1 p.m.	Building 14, classrooms 5, 6, 7

A report on work in progress: SUPERCONDUCTING MAGNETS

We have achieved important milestones on two of our magnet programs. The Preprototype Magnet System, now installed at TRW, has been cooled to its operating temperature of 4K (-453F). The coil windings are now surrounded by 5,000 liters of liquid-helium coolant. The magnet will be charged this week.

Winding the conductor onto the large, D-shaped bobbin for the Large Coil Program began last Thursday. More than five miles of conductor will be fabricated and wound. The work is being done at Plant 19 in building 1.

Make Savings and Stock Plan Changes in August

August is the month to make changes in your participation in the General Dynamics savings and stock investment plan. The changes will become effective with the first full paycheck in October.

If you now have one year of service with General Dynamics and have not been contacted, call Employee Benefits at KM 2559 for signup information or to clarify your SSIP eligibility. It's especially important to do so if you were hired during the past several months and have previous General Dynamics service.

Detailed plan information, along with enrollment and change forms, are available at Employee Benefits.

SIX PASS EXAM

Attend CPL Course That Starts Aug. 13

Integrated Logistic Support is sponsoring a 12-week refresher course designed to reacquaint logisticians with the concepts covered by the Certified Professional Logistician exam. All sessions will be held at Kearny Mesa on consecutive Thursdays from 3 to 6 p.m. Anyone interested should have some background in logistics and supply. To enroll or get details, call Susan at KM 3958.

During the last year, six employees have passed the CPL exam: Angelo Bortolutti, Jack Cooper, Tony Nauyokas, Bob Schussler, Jim Silva, and Pete Sterling.

College Grove-LF Chartered Bus Riders Sought

Riders are sought for a chartered bus that would leave the College Grove shopping center at 6:15 a.m. and arrive at Lindbergh Field and Plant 19 at about 6:45 a.m. The bus would leave Lindbergh at 3:40 p.m. for arrival at College Grove about 4:00 p.m. Call Bruce Smith after 5 p.m. at 579-5236.

Tektronix Product Show Near KM Plant on Aug. 19

Tektronix will display new and existing products at a show in the Al Bahr Temple on Clairemont Mesa Blvd., just west of the Kearny Mesa plant, from 9 a.m. to 4 p.m. on Wednesday, August 19. Sales engineers will be on hand to discuss the products, which include new GPIB programmable instruments and scopes.

Attention, Users of SCRIPT

This is not some kind of pen or funny money. SCRIPT (DCF) is a software program that helps meet the drastic need for an alternative word processing package or tool. It can be accessed through TSO, ATMS, or CICS.

The Western Data Systems Center is looking for people interested in attending/forming a SCRIPT (DCF) Users Group to exchange ideas and helpful hints. The group will be only for people who have a working knowledge of SCRIPT. Plans call for starting a SCRIPT class later on.

For additional information, call Joan Liff or Charlene Cook (KM 6591) in WDSC Administration & Documentation Services.

They Retired in June

Thanks for their contributions to Convair and best wishes for their success in future activities go to each of these individuals who retired in June:

Name	Department	Years of Service
Michael A. Ambrose	Operations	34½
Salvatore Balistreri	Operations	13½
Lyle M. Barnes	VAFB—SLC-3 Engineering	37
Edward D. Booth	DC-10 Assembly Section	40
Clyde E. Burnett	DC-10 Assembly Section	13
Marie Casterline	WDSC—Pomona Sys Dev & Supp	21
John A. Contasti	DC-10 Subassembly, Doors	34½
Jerome A. Drazkowski	Tool Control	29½
Manuel C. Escareno	Transportation Dispatch	25
John S. Good	Welded Subassembly	33½
Donald G. Gordon	Machine Shop	28
Albert J. Gunther	Purchasing	24
Naomi R. Hastings	Manufacturing Technology	32½
LaMar Helton	Dimensional Calibration Lab	30½
Marshall M. Henry	Cruise Missile Inspection	25
Roger J. LaMadrid	Tool Control	31
Linwood K. Lee	Machine Shop	40
George F. McMaster	Mepo Support	24
John F. Mellett	Fabrication Control	24
Vern A. Miller	Tool & Die Processors	34
Richard E. Musterait	Field Calibration	26
Jack J. Nipper	Design Group Engineer	27
Arthur V. Polcyn	Machine Shop	22½
Charles J. Popp	Machine Shop	27½
James B. Robinson III	BGM-109 Ground Launch	14
Mattie C. Ross	Information Telephone	34
Virgil H. Schade	Engineering Test Support	41
Doris E. Taylor	Legal	39
Robert C. Taylor	DC-10 Assembly Section	21
Lena Walling	Fire Department	25
Marguerite B. Weaver	Industrial Accounting	25
Robert J. Wotherspoon	ETR—Transportation	11½
Reynaldo F. Yturralde	DC-10 Bench Assembly	40

'Convairsations with Management' Aug. 13, 18

Jay Hawley, vice president - Contracts & Estimating, will host "Convairsations with Management" that cover his department's operations and objectives. On August 13, he will be at Kearny Mesa, in the building 5 mockup conference room A. On August 18, he will be at Lindbergh Field, in the building 4 operations conference room. Both sessions will run from 4:30 to 5:30 p.m.

Professional Development Classes

Both these courses are offered by the NMA Convair Chapter.

Effective Presentations. Registration is still open for the "Effective Presentations" class that begins August 13. Classes will be held for eight consecutive Thursdays from 4:30 to 6:30 p.m. at Kearny Mesa in the LVP conference room, building 26. Presentation Development Specialist Dewey Maltese will be the instructor. For details and registration, call Gary Kranz (KM 1937) or Michael Brownstein (KM 1033).

Administrative Skills. A few openings are left for the six-week "Administrative Skills for the Manager" class that starts on August 19. The course will help prepare participants for the Certified Manager exam. Instructor Ted Parsons, a Certified Manager, is handling registration. Call him at LF 8653.

KOALA-T KORNER

To clarify last week's Koala-T Korner item: Individuals did *not* do the right thing in deviating from the test procedure. The *right* thing *must* be to change the procedure. The conclusion of the item was correct:



"Make the test conform to the procedure — or make the procedure conform to the test." No substitutions allowed.

Santa Maria Barbecue Set for Sept. 18-19

The annual Santa Maria barbecue event this year will be in Missile Park September 18-19, with overnight camping Friday and activities all day Saturday. The sponsoring NMA Convair Chapter invites all employees, their families, and friends.

No details yet, but the big picture looks great: games, contests, prizes, rides, and dancing, plus the big barbecue dinner itself on Saturday, prepared in authentic Santa Maria style by our chuck wagon gang from Vandenberg.

Eight-Week Speechcraft Course Starts Aug. 25

The Lindbergh Field Toastmasters Club invites you to attend an eight-week course in speechcraft, a program that develops your public speaking ability in a relaxed, seminar-type format. The \$10 fee applies to your Toastmasters membership fee, should you decide to join.

The course will be held on consecutive Tuesdays, August 25 through October 13, from 4:30 to 6:30 p.m. at Lindbergh Field in building 4, Boeing 767 strut conference room. Call Antoinette Saiget at 692-8423.

From the CRA

Shape-Up Starts Aug. 10. The Shape-Up program of regular exercise integrates exercise physiology, nutrition, and stress management. The next program begins August 10 and meets three times a week from 4:30 to 5:30 p.m. The cost is \$40 for seven weeks. Call KM 1111 to register.

Join Weekend Tennis Class. Instructor Jim Wright is holding tennis classes at 4:30 p.m. on Fridays, and both mornings and afternoons on Saturdays and Sundays. Lessons are offered for beginners through tournament players and may be taken in group or private classes. Fees are minimal. Call Carol at KM 1111 or Jim Wright after 8:30 p.m. at 565-6176.

Corps of Engineers Produced This Week's Movie

No details about the noon movie this week. Titled "Ever Open Water" and produced by the Army Corps of Engineers, the film is probably about the Corps' waterway protection, flood control, and dam building.

At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Employment

For the week ending August 2, employment was 7,962.

CONVAIR Weekly Log

August 17, 1981

Published by the Convair Division of General Dynamics

Atlas/Centaur Launches Fifth FLTSATCOM Satellite
Atlas/Centaur launch vehicle AC-59 successfully launched FLTSATCOM—E (Fleet Satellite Communications Satellite) from Complex 36A at Cape Canaveral on August 6. The satellite, launched into geosynchronous orbit around the earth, rotates with the earth to provide two-way communications coverage over 23 super-high-frequency channels for seven years. This was the fifth in the current series of FLTSATCOM launches.

Three additional launches of the spacecraft by Atlas/Centaur are planned, starting in 1985. This launch was the 464th for Atlas and 64th for Centaur. (The first Atlas was launched in 1957 and the first Centaur in 1962.)

These satellites are part of a worldwide Navy, Air Force, and Department of Defense communications system that provides communications among all Navy ships, USAF aircraft, DoD communication systems, and the presidential command networks.

Update on Tomahawk Cruise Missile Program

Convair has delivered a total of eight Tomahawk sea launched cruise missiles (SLCM) to the U.S. Navy since June 30, 1981. These missiles comprise the initial series of Tomahawks scheduled to be flight tested by the Navy in Developmental Test/Operational Test of conventional land attack (TLAM-C) missions and Operational Evaluation of Tomahawk antiship (TASM) missions. Five more Tomahawks are scheduled for factory completion and delivery during August and September, and several land attack and antiship test flights are scheduled during the coming weeks.

In the ground launched cruise missile (GLCM) program, the transporter-erector-launcher (TEL) and launch control center (LCC) system, along with two missiles, are nearing completion for Contractor Test and Evaluation flights scheduled for late 1981.

Enrollments are still open for fall, inplant classes.
Call Ken Johnson at KM 2236.

DATES CHANGED FOR COURSE 9

Space Still Available for CPR Courses in Sept.

The three cardiopulmonary resuscitation courses to be given next month still have openings. Call Marion Campbell at LF 5667 (MWF) or KM 1778 (TTh).

Course 7 at Kearny Mesa

Wednesday, September 2	5-9 p.m.	Building 2 presentation
Thursday, September 3	5-9 p.m.	room (second floor)

Course 8 at Kearny Mesa

Wednesday, September 16	5-9 p.m.	Building 2 presentation
Thursday, September 17	5-9 p.m.	room

Course 9 at Lindbergh Field

This course has been scheduled especially for second- and third-shift workers. The dates have been advanced one week over those announced last week.

Saturday, September 12	9 a.m.-1 p.m.	Building 14, auditorium
Saturday, September 19	9 a.m.-1 p.m.	Building 14, classrooms 5, 6, 7



Rollout ceremonies get under way.

First Boeing 767 Rolls Off Assembly Line

The first 767 airliner emerged from the final assembly bay at Boeing's Everett, Washington, plant on August 4 — right on schedule. Convair and the program's other major subcontractors and suppliers joined Boeing and the 767's airline customers in celebrating this major program milestone.

Richard Ferris, chairman of United Airlines, who launched the 767 program in July 1978 with orders for 30 of the twin-jet aircraft, told the 767 program team: "You've enabled us all to take our next step forward in the history of human flight. The 767 is everything that is right with new technology."

That new technology, typified by the high-performance, low-weight composite and metalbond structure in Convair's engine struts and fairings, allows the 767 to offer as much as 35 percent per seat savings in fuel over earlier jetliners that 767s will replace. Such performance has won the 767 program 17 customers, who have placed 173 firm orders and 133 options — more sales than any new airliner has had on rollout day.

The next major program milestone is the first flight, scheduled for September.

Meanwhile, Convair launched the new GE-powered 767 version with delivery in late July of the first production shipset of GE engine struts. Convair has now delivered seven production shipsets of struts and fairings and 11 test units as production continues to accelerate.

El Cajon-Lindbergh Bus-Pool Needs Riders

Special bus service from El Cajon to the Lindbergh Field plant and Plant 19 is expanding. Just a few more riders are needed to start a third bus. The yellow school bus, "Paul's Line," a private enterprise not affiliated with General Dynamics, offers an opportunity to beat traffic, parking, and gasoline problems, as well as leaving a car for the spouse.

The buses leave the El Cajon K-Mart store at 6:10 a.m. and stop at Lindbergh Field plant gates 1 and 2 and at Plant 19 so that employees arrive before 6:45 a.m. The return trip starts from LF at 3:40 p.m., stops at Plant 19, and arrives at El Cajon about 4:10 p.m.

Cost depends on the number of passengers, as it does in a car pool. Call Bruce Smith after 5 p.m. at 579-5236.

Bruce thanks everyone who has remained on the waiting list for some time and asks that if they haven't heard from him lately, to call and reconfirm.

DC-10 Fuselage Delivered

We delivered fuselage 380 on schedule to McDonnell Douglas on August 11. The fuselage is for the fourth Mexicana Airlines plane.

A Reminder About Employee Benefits Hours

The hours at Employee Benefits offices for walk-in service are:

Kearny Mesa Office. Daily, Monday through Friday, 7 to 7:30 a.m. (closed from 7:30 a.m. to 11 a.m.), 11 a.m. to 4 p.m.

Lindbergh Field Office. Tuesday, noon to 4 p.m.; Thursday, 7 a.m. to 11 a.m.

When the Lindbergh Field office is closed, employees requiring group insurance claim forms can get them at Central Medical in building 15. Questions may be directed to KM 2558, 2657, or 3194.

Theater Workshop on Saturday, Aug. 29

A workshop covering all aspects of theatrical production will be presented by the General Dynamics Performing Arts Company at the CRA clubhouse on Saturday, August 29, from 9:30 a.m. to 4:30 p.m. Workshop topics will include supervision of staff operations, public relations, and coordination of all production disciplines. Fee for the course is \$40, which is refundable by applying the skills learned at the workshop to one of the productions planned by the Performing Arts Company for the 1981-82 season.

The workshop will be conducted by Maggie Bowman, artistic director of the company. Besides holding degrees in producing/directing, speech, and drama, she has taught college-level drama and English, served as producer/director of a youth theater, and cofounded the Performing Arts Company.

A minimum of four and a maximum of eight participants will be accepted. For signup and more information, call Maureen Grega at KM 3521.

Attend Family Fitness Camp Labor Day Weekend

Adults and children are all invited to attend the YMCA's fourth annual family fun and fitness weekend at Camp Surf on the Silver Strand September 5-7. The prices are \$36 for adults (15 and older), \$24 for children (7-14), and \$16 for preschool (2-6). The price includes accommodations and meals. For applications and further information, call the Health-Fitness Center (KM 1111), a cosponsor of the event.

KOALA-T KORNER

A new, updated Quality Assurance Reporting (QAR) pocket guide is now available from Quality Data Systems (MZ 41-3620) for the asking. Ask John Norman (KM 2662).



Corporate Stock Plan Values for June

Here are the unit values in dollars for the General Dynamics savings and stock investment plan as of June 30.

	1979	1980	1981
Salaried			
Government bonds	\$ 2.1830	\$ 2.4811	\$ 2.6307
Diversified portfolio	1.4280	1.8048	2.1383
Fixed income	1.0000	1.0980	1.2161
Hourly			
Government bonds	2.1832	2.4790	2.6279
Diversified portfolio	1.4608	1.8413	2.1851
GD stock	\$16.1250*	\$33.0625*	\$32.3750*

*Reflects 2-for-1 stock split of November 1980.

From the CRA

Art of Stretching. Optimal stretching to increase flexibility and release tension will be taught by specialist Lynn Finney in a three-day class starting August 31. The class will be held Monday, Wednesday, and Friday evenings from 4:30 to 6 p.m. in clubhouse room A. Fee for the class is \$35. Register at KM 1111.

Discount Days at Sea World. Now through August 23, coupons for 25 percent off admission to Sea World are available for employees and their families. Pick up the coupons at KM and LF CRA salesbooths.

Benefit Air Circus at Brown Field. An air circus to benefit the San Diego Aerospace Historical Center will be held at Brown Field on August 21-23. Donation at the door is \$4 for adults, \$1 for children. Kids under five get in free. A brochure on the air show is available at KM and LF salesbooths.

Life Management Lecture Series. "Male and Female Roles" in life management will be the topic of a lecture Monday, August 31, 7-9 p.m., by staff members of the Center for Family Development in San Diego. "Life Management — From Change to Balance" will be the subject on Thursday, September 10, 7-9 p.m.

Arnold Palmer Tours New Zealand in Noon Movie The thread holding together the scenic contrasts in "A Simpler Place in Time" is Arnold Palmer, who is both photographer and traveler as he explores the two islands of New Zealand.

At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Employment

For the week ending August 9, employment was 8,001.

CONVAIR Weekly Log

August 24, 1981

Published by the Convair Division of General Dynamics

First Boeing 767 Strut Spares Shipped

Another first in our Boeing 767 strut production program took place earlier this month when we shipped the first set of spares to Boeing. These were for a 767 equipped with Pratt & Whitney engines. Aircraft Logistics (Dept. 272) and Production Control (Dept. 224) share responsibilities for producing the parts. Two more deliveries are scheduled for later this month.

Centaur People Receive 1981 Jackson Space Award

Earlier this year, the National Space Club selected the NASA/Industry Centaur team as this year's recipient of the Nelson P. Jackson Aerospace award. The award citation reads, "For continuing excellence in the design, fabrication, and flight of Centaur high-energy upper stages." Speaking of the honor, Atlas/Centaur program director Howard Bonesteel commented, "This award was really won by the dedicated and competent people in all Convair departments who produced the hardware and software and who have the knowledge that allowed Centaur to achieve its outstanding record."

In ceremonies at Air Force Plant 19 and Kearny Mesa this past week, Dr. Buchanan presented the award to over 300 Convair Atlas/Centaur program people. He stressed the importance of dedicated personnel in our continued mission success. Bill Rector, vice president - Space Programs, and Howard Bonesteel also attended the ceremonies, which concluded with the Atlas/Centaur movie "Countdown to Success."

The Jackson award plaque will be on display in the Kearny Mesa building 2 lobby this week.

We're No. 1 in Area Savings Bond Participation

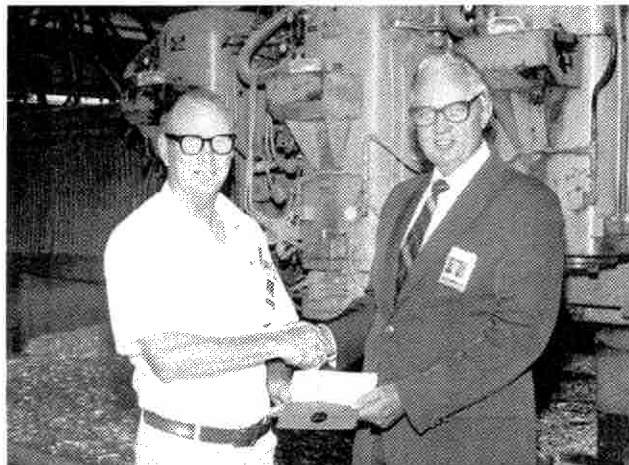
Convair's goal for the 1981 U.S. savings bond drive was to exceed our 1980 level of 87% participation. The coordinators, supervisors, and you, the participants, made that goal a reality. Now, 90% of Convair's employees save regularly through the savings bond program. This is the highest percentage achieved at Convair since 1975.

Employee enthusiasm in supporting this program indicates the overall team spirit of this division. That's important for the success of our products.

Kevin Clark, area manager for the U.S. Savings Bond Division of the Department of the Treasury, was enthusiastic and very pleased with the participation of Convair employees. He informed Ed Barrett, Convair's savings bond drive coordinator, that we had the highest percentage of participants of companies in the San Diego area.

Congratulations to everyone who contributed to this outstanding achievement.

Live TV coverage of Voyager 2 will be presented every day this week at 5 p.m. on channel 15. The spacecraft was launched by Titan/Centaur on August 20, 1977.



John Evans (left), of Lindbergh Field Maintenance, has helped cut company energy costs with a suggestion for rewiring the power controls on LF plank mills. Here, senior facilities engineer Evans receives an Employee Suggestion award and check for \$5,768 from Bill Wise, director of Plant Services.

'Convairsations with Management' Aug. 27, Sept. 1

Cushman Dow, Convair's general counsel, will host "Convairsations with Management" covering the company's legal operations and objectives. He will be at Kearny Mesa on Thursday, August 27, in the building 5 mockup conference room A, and at Lindbergh Field on Tuesday, September 1, in the building 4 operations conference room. Both seminars will be held from 4:30 to 5:30 p.m.

Enrollments Still Open for Fall Inplant Classes

You still have time to enroll in any of the following courses. Call Ken Johnson (KM 2236) for KM courses and Wayne Turner (LF 8564) for LF courses.

Courses at Kearny Mesa

Introduction to Data Processing
Accounting Principles
Dimensioning & Tolerancing
Manufacturing Quality Assurance
Industrial Blueprint Reading
Principles of Economics (cancelled)
Business Organization & Management
Occupational Spanish (cancelled)

Courses at Lindbergh Field

Introduction to Supervision
Human Relations
Automated Process Control
Dimensioning & Tolerancing
Production Development
Machine Shop Trigonometry
Computer-Based Sensor Measurement
Advanced Numerical Control
Advanced Blueprint Reading
Manufacturing Equipment
Plant Layout

Sept.

Start Date

Mon., 14th
Mon., 14th
Tues., 8th
Wed., 2nd
Wed., 2nd

Thurs., 3rd

Mon., 14th
Mon., 14th
Tues., 8th
Tues., 8th
Tues., 8th
Wed., 2nd
Wed., 2nd
Wed., 2nd
Thurs., 3rd
Thurs., 3rd
Thurs., 3rd

They Retired in July

Convair's thanks and best wishes go to each of these employees who retired last month:

Name	Department	Years of Service
John W. Andrew	Logistic Depot	30
Margo V. Archibeque	Booster Assembly	31½
Marjorie L. Bare	WDSC—Scientific Operations	21
Charles J. Beverlin	ETR—Launch Operations	24
Melvin R. Burris	Tomahawk Final Assembly	33½
Gerald G. Christ	Operations Test Engineering	25½
Evelyn Y. Christopoulos	Employee Benefits	22
Victor A. Contreras	Machine Shop	39½
Donald R. Dayharsh	Engineering Test Support	29
George Dixon	Custodial Services	29½
Charles G. Donovan	Preliminary Design	29
Harold L. Evans	Art & Editorial	36
Everett W. Fenwick	Plant Fabrication	37½
Elroy W. Groth	Material Handling	33½
Kermit O. Hanson	Photo Reproduction	39
Donald W. Hayes	DC-10 Assembly	30
Louis A. Horde	Tool Stores	27
Hoyt D. Jeter	Support Equipment	25½
George C. Lang	Tomahawk Weld & Machining	39½
Julian J. Medina	Atlas Final Assembly	41½
LeRoy V. Millerd	Tooling, Machine Shop	29
Robert E. Nolin	Machine Shop	21
Rodney M. Petersen	Jigs & Fixtures	29
Johnnie O. Price	Plant Fabrication	7
Walter D. Reeder	Aerodynamics	31
V. Gordon Reid	DC-10 Panels	41
Guy E. Rhea	Assembly Inspection	35½
Frank E. Rogers	Tool Control	29
Harry M. Ross	Tool Control	30
Irma M. Rutherford	Contracts File Room	34
Arthur W. Smith	Machine Parts Inspection	29
John A. Smithson	Construction Operations	14
Henry A. Stroing	DC-10 Assembly	40
George C. Wilson	Thermodynamics	25
Nellie C. Ybarra	DC-10 Assembly	17½

Our total utilities bill for July was \$926,771. Electricity cost \$793,342, natural gas \$89,770, and water \$43,660. Lindbergh Field and Kearny Mesa reduced their electrical demand charge by \$7,281 from last July. Please help further by setting air-conditioning thermostats no lower than 78F and turning off all unnecessary lights.

Nuts & Bolts on Post Office Tour Aug. 26

A reminder for those who signed up for the tour of the main post office this Wednesday: the one-hour tour will begin at 6 p.m. Get to the post office at 5:45 p.m. The guard at security gate 1 will direct you to the parking area and tell you how to get to room 102 where the tour begins. Jan Lawrence (KM 1108) has details. The tour sponsor is the NMA Convair Chapter.

From the CRA

One-Time Chance to Learn Finney Method. Lynn Finney, the Harlem Globe Trotters' stretching specialist, will present "The Finney Method: The Art of Stretching" at CRA starting on August 31. His method shows how to maximize athletic potential and minimize injuries, increase flexibility, and relieve tension. The clinic will be held Mondays, Wednesdays, and Fridays, August 31 through September 4, from 4:30 to 6 p.m. in the clubhouse. The fee (much lower than the usual price) is \$35. Register with the Health-Fitness Center (KM 1111).

Advanced Basic Scuba Classes to Start. A new advanced scuba diving class will begin in the clubhouse on August

KOALA-T KORNER

Employees who suspect the accuracy of their personal dimension-measuring tools used on the job at Convair may have the accuracy checked by the Dimensional Calibration Lab at KM or LF plants. Call KM 1100.



27 at 4:30 p.m. A basic class will start on September 14. For details, call Rich Sillampa at KM 3388.

VIPs at Convair Last Week

Congressman Joseph Addabbo, D-NY, received Convair program briefings and toured our facilities. Adm. J. G. Williams, Jr., USN, chief of Naval Material; George Sawyer, assistant secretary of the Navy (ASN) for Shipbuilding & Logistics; and Anthony Ditrapani, director of Ship Programs, Office of the ASN for Shipbuilding & Logistics, attended Tomahawk reviews. Gen. Robert Marsh, USAF, commander, Air Force Systems Command, attended briefings on the ground launched cruise missile program.

Toastmasters Courses Start

Learning the basics of good speaking, followed by practice in speaking to a group of people who are also striving to improve their speaking skills, is the best way to improve your speaking abilities. It will help you to be more effective both in interpersonal speaking and in presenting your ideas to larger groups. One of the best ways to gain these benefits is through Toastmasters. At Convair, you have a choice:

LF Toastmasters Course Starts Aug. 25. A Speechcraft course will be presented by the Lindbergh Field Toastmasters Club starting August 25 in the Boeing conference room on the mezzanine of building 4. Classes will be from 4:30 to 6:30. Call Ted Parsons at LF 8653 or Antoinette Saiget at LF 8423.

KM Toastmasters Course Starts Sept. 24. Dynamic Toastmasters 457 is offering an eight-week Speechcraft course beginning September 24. Sessions are from 5 to 7 p.m. on Thursdays in CRA clubhouse room C. They are held in conjunction with regular club meetings, so you can see what Toastmasters is and how it operates.

Cost of the course is \$10, which includes course materials. To enroll or obtain further information, call Bill Ketchum (KM 2283 or 3924) or Jim Kelly (LF 8824). Enrollment is limited to the first 10 applicants.

Santa Maria Barbecue Set for Sept. 18-19

The Santa Maria barbecue will be held in Missile Park September 18-19, with overnight camping Friday and activities all day Saturday. The sponsoring NMA Convair Chapter invites all employees, their families, and friends. Tickets will go on sale next week.

Film on Hang Gliding to Be Shown This Week

Local hang gliding instructor Howard Mitchell has loaned us this film, which he uses in all his classes. At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Employment

For the week ending August 16, employment was 8,006.

CONVAIR Weekly Log

August 31, 1981

Published by the Convair Division of General Dynamics

New Atlas Program Initiated by NASA

Convair has received direction from the National Aeronautics and Space Administration to proceed with an Atlas H program. The Atlas H space vehicle will have the body of an Atlas D and the electronics of Atlas E/F vehicles. We will build five of these vehicles over the next two to three years and deliver them via NASA to the USAF for Air Force missions.

The Atlas H vehicles will be launched from Vandenberg Air Force Base Complex 3 East.

During the first half of 1982, the complex will be modified from its present Atlas E to the Atlas H configuration. Modifications to the launch facility and to aerospace ground equipment have been identified; design detail work will begin shortly, under Air Force authority.

MX Deployment Module Shipped

The first deployment module (DM) supplied under our current contract with the Avco Systems Division was shipped on Aug. 16. A second unit is scheduled for shipment on Sept. 12. The MX deployment module contract calls for ten units for ground test and ten for MX development test flights. Our eventual production order is expected to be for at least 300 units.

We delivered a prototype DM unit last January to Avco Systems Division, prime contractor for the MX re-entry system. The unit has passed all significant structural tests with complete success.

A major portion of the DM structure is an assembly of graphite/epoxy composite materials designed by Advanced Design (Dept. 673). The DM program is providing an avenue for developing a production capability in graphite composites at the Convair Division.

Seminar for Perkin-Elmer Users Group Sept. 9

The San Diego Perkin-Elmer Users Group will hold a seminar on Wednesday, Sept. 9, from 8 a.m. to 5 p.m. at Kearny Mesa in the building 2 presentation room on the second floor. The seminar is for people interested in new uses and applications of Perkin-Elmer computing equipment.

Topics will include use of the CRT driver, use of operating system utilities, and overlay structures under the operating system. Registration is required; call Jerry Stamper at KM 3288 no later than Sept. 4.

Barraco, Rosenthal Present Tech Papers

Two Convair employees presented technical papers at the Sixteenth International Symposium of the Society of Logistics Engineers, held last week in Seattle. Mary Barraco, a senior engineer in Logistics Engineering (Dept. 262), presented her paper titled "Computerized Maintainability Timelines." Sandy Rosenthal, manager of Integrated Logistic Support Engineering (Dept. 260), presented his paper titled "The ILS Review Board."

SAFETY SPOTLIGHT



"See—I told you that some guy's glasses aren't SAFETY GLASSES!"

Eye protection is mandatory in posted areas — obey the signs. Safety glasses, goggles and shields are for YOUR protection.

Our Preprototype Magnet System Takes Charge

Convair's superconducting magnet for TRW's Preprototype Magnet System was charged to full magnetic field at TRW last week — 2,800 amperes. Our three-man team at TRW carried out the task.

This event is the magnet system equivalent of a first complete flight for a missile system. Convair has thus joined a very exclusive group of companies or laboratories that have built and successfully operated a large superconducting magnet. Congratulations to our magnet team for this success.

Quality Circle Makes Management Presentation

QC-3, the Quality Circle in Avionics Manufacturing, Test & Inspection (Dept. 050), made its first presentation to management on Aug. 18. The presentation followed the circle's four-month analysis of a major problem the department was having with the flow of parts through the work area.

During the meeting, QC-3 members gave management an update on their accomplishments and made two recommendations for solving the parts-flow problem. In keeping with Quality Circle procedures, management will respond to the recommendations within two weeks.

The QC-3 members are Anna Allison, Pat Gallegos, Pam Genetti, Len Murphy, Frances Navarette, Pauline Richmond, Erika Rodgers, Russ Stahlak, Nieves Stookins, and Evelyn Ward.

FLIP

DC-10 Fuselage for Aerial Tanker Delivered

DC-10 fuselage 381 was delivered to McDonnell Douglas in Long Beach last Friday, in accordance with our contract schedule. The fuselage is scheduled for the Air Force's seventh DC-10A tanker.

Investment Seminar Starts Sept. 15

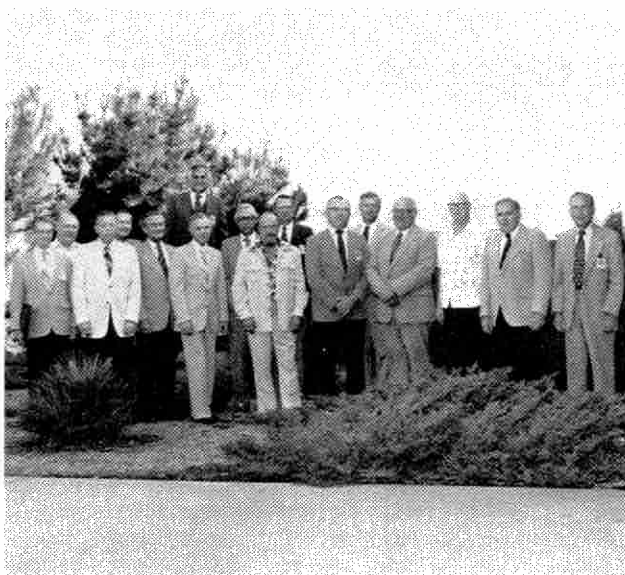
A seminar titled "How to Fight Inflation and High Taxes" will be given on Sept. 15, 22, and 29 by Bill Goode, an investment specialist with Sutro & Co. Mr. Goode will survey strategies to meet your investment objectives, including money market funds, stock options, bonds, and the tax shelter market.

Sessions will be held from 4:45 to 6:45 p.m. in the Kearny Mesa cafeteria. Call Ben Wheat at KM 2521 for registration and information.

Musical 'I Do! I Do!' at Dinner Theatre Sept. 25

Tickets are now available for the Friday, Sept. 25 performance of "I Do! I Do!," a musical comedy about the joys and challenges of marriage. It will be presented at the Lyric Dinner Theatre, 7578 El Cajon Boulevard.

The reserved seat price of \$15 per person includes a buffet dinner, parking, and the main performance. Dinner begins at 6:30 p.m. and the musical is at 8:30. Reservations must be made by Sept. 4 with Cissy Campbell, KM 1287. Ticket sale is sponsored by the Convoir Chapter of the NMA.



Dr. Buchanan Hosts Long-Timers at Breakfast

Employees who recently completed 35 or more years at Convoir were honored at a Service Awards breakfast hosted by Dr. Buchanan. Also attending were division staff members Chuck Bohle - Controller, Dan Da Pra, vice president - Research & Engineering, Jay Hawley, vice president - Contracts & Estimating, and Ed Squires, vice president - Production.

From left to right in the above photo (years at Convoir in parentheses): Jack Morris (35), Bill Arends (40), Lloyd Boles (40), Chuck Bohle, Carl Priest (40), Bill Bailey (40), Dan Da Pra, Walt Vierra (40), Norman Kinischtzke (40), Jay Hawley, Ed Johnson (40), Ed Squires, Dr. Buchanan, Paul Aslin (35), Elwood Ruttan (35), and Fred Matern (40).

KOALA-T KORNER

An ounce of prevention is worth a pound of cure. If you see a potential quality problem such as improperly stored or protected materials and parts, illegible drawings, incorrect or unclear work instructions, malfunctioning equipment or machinery, etc., report it to your supervisor or Quality Assurance. That's the ounce of prevention!



From the CRA

For more information about any of the following events, call KM 1111.

Fall Tennis Instruction Schedule. Beginning Wednesday, Sept. 2, CRA tennis instructor Jim Wright will offer Saturday classes between 3 and 6 p.m., by appointment only. Sunday classes can be scheduled by appointment between 9 a.m. and noon, and between 2 and 5 p.m. Tennis Club members receive reduced rates.

For scheduling, leave name and telephone number with Leslie at KM 1111. Jim Wright may be reached after 8:30 p.m. at 656-6176.

Tickets for Padres and Amusement Parks. Tickets are now available at \$2.75 each for the Padres-Houston Astros game on Thursday, Sept. 17, at 7 p.m. in San Diego's Jack Murphy Stadium.

Sept. 19 and 20 are General Dynamics days at Knott's Berry Farm. Tickets for the amusement park are on sale for \$6.25.

Six Flags Magic Mountain is sponsoring General Dynamics days on Saturday and Sunday, Sept. 19 and 20. Tickets are \$7.25 for adults and \$5.95 for children.

Racquetball Club Meeting. The Racquetball Club will meet Wednesday, Sept. 9 at 4:30 p.m. in room B of the CRA clubhouse. Interested in joining? Call Jim Steckbeck at KM 2429.

Seminars on Stress Management. Six hour-long sessions on stress management will be conducted by Don Levitt, an associate of the San Diego Bio Feedback Institute, beginning Sept. 14 and continuing through Oct. 29. The sessions will begin at 5 p.m. each Monday in the CRA clubhouse. Fee for the series is \$35.

Life Management Lecture Series. "Male and Female Roles" will be the topic tonight of a lecture presented by staff members of San Diego's Center for Family Development. Join your colleagues from 7 to 9 p.m. for this first in a two-part series.

Chargers' Winning Season in Noon Movie

This week's film, "1980 Charger Highlights," includes the games and crucial plays that made the team last year's Western Division champs in the American Football Conference.

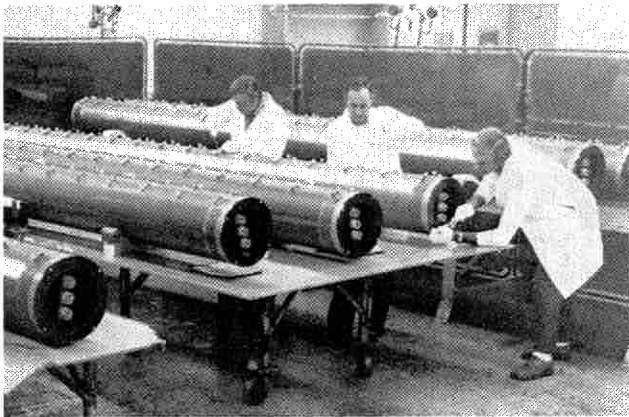
At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Employment

For the week ending Aug. 23, employment was 8,025.

CONVAIR Weekly Log September 8, 1981

Published by the Convair Division of General Dynamics



We're building these graphite/epoxy tubes for the shuttle orbiter's arm booms.

A report on work in progress: ORBITER MANIPULATOR SYSTEM ARM BOOMS

When the space shuttle *Columbia* lifts off on its second flight (now scheduled for October 9), the remote manipulator system (RMS) will be aboard the orbiter, making its first flight. For the RMS, we build the two tubular sections of the fifty-foot-long arm boom. The primary purpose of the arm is to deploy payloads from the orbiter's payload bay, retrieve them from orbit, and return them to the bay. (The payload bay, of course, is the Convair-built mid-fuselage.)

We are building the graphite/epoxy tubes for Spar Aerospace Ltd. of Canada. In 1979, we delivered three of the units; one was used for testing and two were qualified for flight. We will deliver three more flight-qualified booms in 1982. These will soon undergo testing at our Harbor Drive facility.

Doug Holmes is program manager for building the arm-boom sections.

New EWI Participants Now at Convair

Three participants in the Education with Industry (EWI) program have joined Convair recently from the Air Force: Maj. Harvell F. Cooper, Capt. John M. Volpe, and USAF civilian Mr. Michael Ryan.

EWI is an educational program jointly sponsored by the Air Force Institute of Technology and nearly 70 leading industrial firms. It is designed to educate officers in industrial concepts and ensure that the Air Force will maintain managers well-qualified to handle its business with industry. The participants will work to develop qualities and abilities necessary for effective management and to gain an understanding of organizational structure, management methods, and the technology of modern industry.

For the first time in the 25 years that Convair has participated in the EWI program, Air Force civilians have been included.

Professional Development Course Starts Sept. 28

"Behavioral Insights for Supervision" is the title of a six-week course to be held on consecutive Mondays beginning Sept. 28. The course will be held in Lindbergh Field's Boeing conference room, building 4, from 4:30 to 6 p.m. Key topics will include human resources, motivation, supervisory roles, and communications.

Sponsored by the NMA Convair Chapter, the course costs \$15 for NMA members (with a \$10 refund on course completion) and \$20 for nonmembers. Register with instructor Julian Jaeger at LF 8729 or 8010.

Admiral Enjoys Reunion, Lauds CM Assembly

While touring Convair facilities recently, Adm. J.G. Williams, Jr., Chief of Naval Materiel, held an impromptu reunion with Rodger Clapp, operations supervisor for Cruise Missile Final Assembly (Dept. 038).

Adm. Williams had been Rodger's squadron commander on the USS *Dixon* from 1971 to 1975. During that time, Rodger received a meritorious citation for his work in developing and implementing weapon-handling procedures and training programs.

The admiral was both surprised and pleased to meet Rodger again and commented that if Rodger is a typical Convair employee, then Convair has an outstanding crew in the cruise missile assembly area.

Does Convair Have Your Correct Home Address?

Employee Benefits will soon be mailing material to employees' homes, so now is a good time to make sure your address is correct. Take a look at your paycheck this week; the address there is the one that appears in all company records. If it's not correct, use a pink change-of-address card available at time clocks and in KM and LF Employee Benefits. Incorrect addresses can cause delays or additional postage charges and might cause you to miss receiving important information.

Protect Your Eyes with Safety Glasses

From now through October, the Safety Office is offering safety glasses with frame and lenses priced at \$20 for single vision and \$39 for bifocal. The eye examination fee is extra, or bring in a prescription from your doctor.

Are safety glasses worthwhile? Bernie Ackerman thinks so. Recently, Bernie of Tool Manufacturing (Dept. 454), was removing a broken tap from a mill fixture. A piece of the tap broke off, struck and shattered a lens of the safety glasses Ackerman was wearing. Bernie escaped injury due to the protective glasses. For details and the location of the optometrist's office near you, contact the Safety Office at LF 8186.

Tour Planetarium Evening of Sept. 28

The NMA Convair Chapter invites employees and their guests to attend the planetarium show at Southwestern College on Monday, Sept. 28, from 7 to 10 p.m. The college is in Bonita, at the junction of Otay Lakes and

Telegraph Roads. The event is limited to 63 people and will cost approximately \$1.25 per person. To register, call Jan Lawrence at KM 1108 or 3324.

They Retired in August

Convair's thanks and best wishes go to each of these employees who retired last month.

Name	Department	Years of Service
Frank P. Arena	Maintenance	22
Clyde H. Blewins	Photo Reproduction	19
Edwin J. Carr	Systems Definition	24½
LaVaughn D. Chalfant	Quality Assurance—ETR	25
James A. Copeland	Materials Test Lab	18½
John L. Dunn	Quality Assurance—ETR	23
John W. Dutcher, Jr.	NASA Launch Operations—ETR	24
Wayne E. Ely	Inspection Fabrication	34
Emery E. Farthing	Manufacturing Engineering	14
Bernice M. Gestaut	Purchasing	22
David N. Kahler*	General Dynamics Services Co.	27
Norman H. Kennedy	Space Systems	24½
Julie Kytar	Library	22½
Vincent J. Neitzie	Scientific Operations—WDSC	30
Francisca M. Pumar	Shop Order Data Audit	28
Robert G. Roscoe	Measurement Engineering	26
Florence I. Vannatter	Data Control—WDSC	31
Eugene Weems	Boeing Strut Assembly	31
Wellington L. Wotring	Jigs & Fixtures, Tool Mfg	20
Gifford B. Wright	Machine Shop	26

*Retired in July 1981

KOALA-T KORNER

If you see a problem or a defect occur time and time again, bring it to the attention of your supervisor or to Quality Assurance. Repetitive defects can and should be reported by anyone at Convair. An occurrence may not be prevented, but a repetition must.



Spend Weekend in Las Vegas Oct. 2-4

The price of \$180 per person includes accommodations at the Sundance Hotel & Casino, transportation, and extras. A few spaces are still available. Call Bill Kramer at KM 2855. A deposit of \$25 is required.

Thanks for reducing electrical demand. *Extra hot weather during the last week of August caused highest-ever demands on electricity from San Diego Gas & Electric Co. Your efforts in turning off unnecessary lights, getting by with less air conditioning, and scheduling other electrical loads to off-peak times helped SDG&E and also saved \$30,000 on Convair's electric bill.*

From the CRA

Video Club Forming. Anyone interested in joining a video club is invited to attend an organization meeting in the clubhouse on Sept. 16 at 7:30 p.m. The club would teach members about electronic tools such as video display terminals. Chuck Ogle (KM 2525) has details.

Thunderboat Tickets for Sale. Get tickets at CRA for the Thunderboat races on Mission Bay, Sept. 17-20.

Fall Tennis Classes. Call instructor Jim Wright at 565-6176 (corrected number) after 8:30 p.m. or the clubhouse (KM 1111) for information on Saturday and Sunday tennis instruction by appointment.

Ski Club Signup. A signup party for a snow ski club will be held at CRA on Sept. 8 from 5:30 to 9:30 p.m. Hamburgers, beer, wine (slight charge) and a Warren Miller movie (free).

Aluminum Company Featured in Noon Movie

"Making Ideas Happen" covers activities of the Howmet Aluminum Corp. in France, Australia, and this country, along with showing how the metal is refined and what products are made from it.

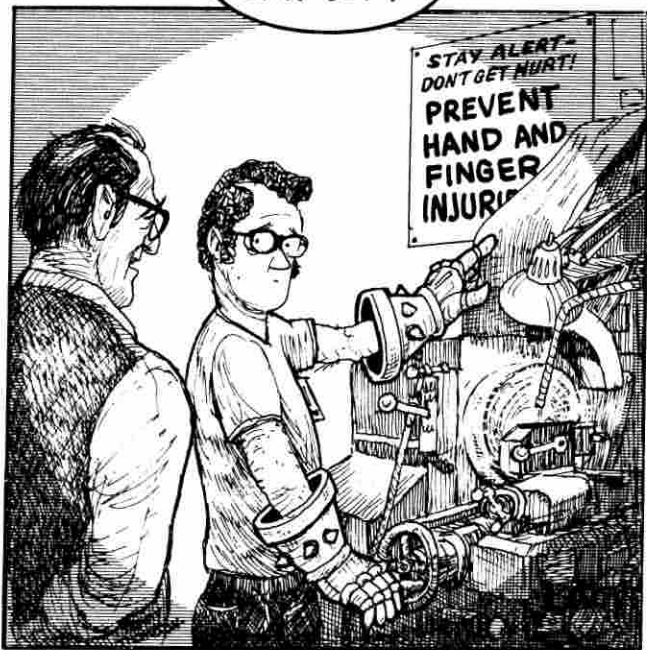
At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Employment

For the week ending August 30, employment was 8,002.

SAFETY

SPOTLIGHT



"But knights of old never tangled with machinery, Mosely, just use care."

Protect your most valuable tools - your hands. Obey safety rules. Stay clear of moving parts and pinch points. Prevent tool slips.

CONVAIR Weekly Log

September 14, 1981

Published by the Convair Division of General Dynamics



Instructors Jim Cannon (left) and Mark Schwartzel of Logistics Operations with graduates of GLCM's first Type I training course.

GLCM Meets Additional Program Milestones

Two more project milestones were met last week by the Ground Launched Cruise Missile program. On Friday, six Air Force students graduated from a 40-hour Type I GLCM training course. Earlier in the week, nine other Air Force personnel began a second GLCM course on the electrical power, operation, and maintenance of the GLCM system's transporter-erector-launcher and launch control center. These courses are significant for the GLCM project, because they represent the beginning of formal and continuing Type I GLCM program training.

Join Tour to Planetarium Show Sept. 28

The NMA Convair Chapter invites employees and their guests to attend the planetarium show at Southwestern College on Monday, Sept. 28, from 7 to 10 p.m. The college is in Bonita, at the junction of Otay Lake and Telegraph road. Three shows and accompanying lectures will be presented by Professor Jon Olson. They will deal with the mysteries of the solar system, sky lore, and a star constellation. The event is limited to 63 people and will cost approximately \$1.25 per person. To register, call Jan Lawrence at KM 1108 or 3324.

Corporate Stock Plan Values for July

Here are unit values in dollars for the General Dynamics savings and stock investment plan as of July 31.

	1979	1980	1981
Salaried			
Government bonds	\$ 2.1943	\$ 2.4762	\$ 2.6184
Diversified portfolio	1.4585	1.8771	2.1407
Fixed income	1.0079	1.1072	1.2274
Hourly			
Government bonds	2.1947	2.4742	2.6154
Diversified portfolio	1.4922	1.9151	2.1875
GD Stock	\$16.1250*	\$36.5625*	\$28.7500

*Reflects 2-for-1 stock split of November 1980.

Campout, Feast, Prizes, Games — All at Santa Maria Barbecue

The expert barbecue team from Vandenberg will bring their famous Santa Maria beef for the campout and barbecue dinner at Missile Park. To reserve overnight camping space for Friday and Saturday, Sept. 18-19, call wagonmaster Russ Thomas at KM 2633. Tickets for the Saturday barbecue meal are available from sponsoring NMA Convair Chapter representatives.

Movie on Importance of America's Roads

"Everything Rides on the Roads" shows how America's economy — food, clothing, shelter, goods and services — depends on the nation's highways.

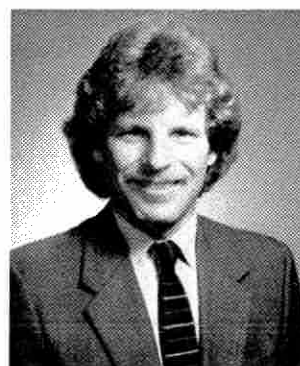
This Caterpillar Tractor Co. film will be shown at Kearny Mesa on Wednesday in classroom 3 of building 17 at 11 a.m. and at noon. At Lindbergh Field, showings will be Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Plant-Wide Power Shutoff at LF Sept. 20, 27

A planned electrical power outage will occur at the Lindbergh Field Plant on Sunday, September 20, and Sunday, September 27. On both days, there will be no electricity, steam, air conditioning, or compressed air from 7:00 a.m. to 3:30 p.m. in all buildings and yard areas. This outage is required for annual maintenance of the electrical system. Direct all questions to Al Damarus, LF 8215.

CRA's Marc Michaelson Receives National Award

Marc Michaelson, director of the CRA Health-Fitness Center, is the recipient of the 1981 Individual Honor Award conferred by the American Association of Fitness Directors in Business and Industry. The AAFDBI is an affiliate of the President's Council on Physical Fitness and Sports. Marc will be presented with the award at the annual AAFDBI conference in Florida later this month.



In announcing the honor, the AAFDBI said of Michaelson, "The impact of his work has had a far-reaching effect on the field of employee health and fitness." Past recipients include Dr. Kenneth Cooper, author and founder of the Aerobics Research Center, and Dr. William Hettler, chairman of the Department of Human Development at the University of Wisconsin.

Born in New York City, Michaelson joined the CRA in November 1978. In addition to directing the Health-Fitness Center, he is chairman of the General Dynamics Health Education Committee and coordinator of the Wellness at the Workplace project, newly established for businesses in the San Diego community.

FLIP

Weekend in Las Vegas Oct. 2-4, \$180 per Couple

A few spaces remain for the weekend trip to Las Vegas October 2-4. The price of \$180 per couple includes accommodations at the Sundance Hotel & Casino, transportation, and extras. A deposit of \$25 is required. Call Bill Kramer at KM 2855.

Professional Development Courses Sept. 28, 30

'Interpersonal Relationships' (course 4 of first-line supervisor program) will start Wednesday, Sept. 30, at Lindbergh Field. It will be held from 4:30 to 6:30 p.m. The instructor will be Mike Hersh. For registration and more information, call Gary Kranz, KM 1937.

'Behavioral Insights for Supervision' is the title of a six-week course to be held on consecutive Mondays beginning Sept. 28. The course will be held in Lindbergh Field's Boeing conference room, building 4, from 4:30 to 6 p.m. Key topics will include human resources, motivation, supervisory roles, and communications.

Sponsored by the NMA Convair Chapter, the course costs \$15 for NMA members (with a \$10 refund on course completion) and \$20 for nonmembers. Register with instructor Julian Jaeger at LF 8729 or 8010.

CPR: Course Location Changed to KM Cafeteria

The location of the CPR course scheduled for September 16 and 17 has been changed to the Kearny Mesa cafeteria.



People Are Asking . . . What is EXCEL?

EXCEL is a Convair program for recognizing outstanding performance. Through EXCEL, supervision acknowledges and rewards outstanding efforts by an individual employee, a group of employees, or a vendor.

Why have an EXCEL program?

Everyone welcomes recognition for a job well done and being singled out for exceptional performance. The EXCEL program gives Convair supervisors a method for giving such recognition to their employees. It also motivates individuals to improve their performance and gain this recognition. Such improved performance lowers costs, improves quality, develops better designs, and produces numerous other benefits, making Convair more competitive in the marketplace and providing greater employment security.

How does EXCEL work

When a supervisor recognizes an outstanding performance, he or she nominates you for an EXCEL certificate. Nominations are reviewed by the EXCEL Working Group and appropriate staff members. When approved, a Certificate of Appreciation, signed by the supervisor and a staff member, is presented to you along with an EXCEL award at a ceremonial meeting.

Managers or staff members may also nominate you for the Citation Award, a higher level EXCEL award for exceptionally outstanding performance.

KOALA-T KORNER

In the preparation and subsequent handling of the Quality Assurance Report (QAR), it is of utmost importance that the discrepancy (Block 21) be carefully and completely described. People who later enter disposition and corrective action information depend on this accuracy, which is also essential to data retrieval.



From the CRA

Tomahawk Mugs, Coasters, T-Shirts Sale. CRA now has Tomahawk mugs, coasters, and T-shirts for sale at both KM and LF salesbooths. Contact Leslie KM 1111 for information.

Magic Mountain Discounts. Last chance to take advantage of the \$3.70 discount on General Dynamics days at Magic Mountain on Sept. 19-20. Prices are \$7.25 for adults, and \$5.95 for children (children under three admitted free). For information, call KM 1111.

SD Zoo & Wild Animal Park Discounts 20%. The San Diego Zoo and Wild Animal Park are offering a 20 percent discount on admissions during Sept. 21 - Oct. 25. Call Leslie at KM 1111 for more information.

Employment

For the week ending Sept. 6, employment was 8,013.

Yearly, staff members may nominate you for the General Manager's Award, the highest EXCEL award. It is for performance or an act that distinguishes you as the most outstanding employee of the year. The general manager and the EXCEL Working Group select a winner from among the nominees.

Where can I get more details on EXCEL?

For nomination forms or additional information about the EXCEL program, call the EXCEL Working Group member in your area:

Department	Name	Phone
Contracts & Estimating (111-0)	Julie Medley-Brandt	6374
Finance (192, 194)	Jake Ibarra	2629,
	Jack Walk	1671
Integrated Logistics Support (260-0)	Roy Sommers	1496
Program Development (102-4)	Bud Smith	2823
Operations		
Experimental (050-0)	Joel Selber	2116
Fabrication & Processing (019-0)	Bill Walker	8048
Manufacturing Control (225-1)	Larry Mattson	8303
Manufacturing Engineering (432-0)	Buzz Prettyman	5633
Industrial Engineering (241-1) & Scheduling (241-0)	Rich Cassens	5596
Plant Services (251-0)	Lance Elmstrom	1618
Procurement (850-0)	Inez Markel	8252
Quality Assurance (340-0)	Larry Harter	1521
Research & Engineering (656-0)	Sara Boehmer	2705
Western Data Systems Center (518-0)	Dick Knudson	6141
EXCEL Coordinator (133-4)	Jack Farnan	2256

CONVAIR Weekly Log

September 21, 1981

Published by the Convair Division of General Dynamics

CONVAIR EXECUTIVES ATTEND EUROPEAN SYMPOSIUM Promote Our Advanced Space Programs

W. F. Rector III, vice president of Space Programs, Dr. R. M. Bowman, program manager of Geostationary Platforms, and D. A. Heydon, director of Space Programs Marketing, earlier this month attended the American Institute of Aeronautics and Astronautics symposium of the International Astronautical Federation in Rome, Italy. At the symposium, Rector and Bowman presented papers describing Convair Division capabilities in advanced space programs. Attendees at the Rome symposium exhibited much interest in Convair's concepts and planning on geostationary platforms.

The Convair team will go to Paris, Brussels, Munich, and London, meeting with the European Space Agency and British Aerospace administrators. They will confer on aerospace hardware systems integration, and teaming possibilities with European aerospace companies, before returning on Friday, Sept. 25.

Join Tour to Planetarium Show Sept. 28

The NMA Convair Chapter invites employees and their guests to attend the planetarium show at Southwestern College on Monday, Sept. 28, from 7 to 10 p.m. The college is in Bonita, at the junction of Otay Lakes Road and Telegraph Canyon Road. Three shows and accompanying lectures will be presented by Professor Jon Olson. They will deal with the mysteries of the solar system, sky lore, and a star constellation. The event is limited to 63 people and will cost approximately \$1.25 per person. We will meet and park in the southwest parking lot near the planetarium. Please have correct change available upon entry to the show. For registration or directional maps, please contact Jan Lawrence at KM 1108 or 3324, in building 3, first floor, col A-4.

UCSD Offers Engineering Courses

The Department of Applied Mechanics and Engineering Sciences at the University of California, San Diego, has scheduled an increasing number of graduate and advanced undergraduate classes for students with full-time employment commitments. Classes begin on Monday, Sept. 21. Call Barbara Fleming at 452-3178 for information on registration and course offerings.

American Astronautical Meeting Oct. 26-29

The American Astronautical Society is holding its 28th Anniversary Meeting at the Sheraton Inn-Airport in San Diego, Oct. 26-29. The Hon. James E. Beggs, Administrator of the National Aeronautics & Space Administration, is the executive chairman; and W.F. Rector III, vice president of Space Programs, is the general chairman. Theme for this year's conference is *Leadership in Space — for Benefits on Earth*.

If you would like to attend any or all of the sessions, contact Beth at KM 1828 for registration forms and further information.



Triple Gantry CNC Profiler at Plant 19

Installation of Convair's new three-axis triple gantry computerized numerically controlled profiler is in progress at Plant 19, building 1. The 108-foot long, 13-foot wide bed, three gantries, and eleven spindles, make it the largest machine tool at Convair. This machine tool will manufacture parts up to 60 feet long.

Addition of this tool to our machine shop will further enhance the division's modernization of our aerospace production capabilities.

Professional Development Courses Offered Sept. 28

First Line Supervisor Program Course 4, 'Interpersonal Relationships' is being offered by NMA Convair Chapter at Lindbergh Field Wednesday, Sept. 30, from 4 to 6 p.m. in building 14, classroom 5. The Kearny Mesa class will be held Tuesday, Oct. 6, 4:30 to 6:30 p.m. in the building 26, space conference room. Instructors will be Mike Hersh at Lindbergh Field and Don Davis at Kearny Mesa. Course fees are \$10 for NMA members (refundable upon successful completion) and \$14 for nonmembers. Register with Gary Kranz at KM 1937 or Michael Brownstein at KM 1033. Sign up soon. Attendance is limited.

Canteen Celebrates 1st Anniversary at Convair

Canteen of San Diego, Inc., last week celebrated their one-year anniversary of cafeteria and vending machine services at Convair. Since Canteen assumed operation of our food service program, the number of cafeteria customers has more than doubled. Canteen attributes this to improved food quality, greater menu variety, a more extensive salad bar, and custom sandwiches.

However, due to the increased patronage of the cafeteria, overcrowding has occurred. Convair is aware of this problem and is working to alleviate it.

Koala-T-Corner



One person can make the difference. You are that person. If travellers are used in your work, remember to check the traveller for completeness and buyoff of preceding operations. You can't do a good job unless previous operations are correct and complete. Report any discrepancies in the traveller to your supervisor. You can make the difference.

In-Plant Electronics Store Offers Parts, Services

Jodi Roberts, representative of Arrow Electronics in-plant store, announces parts and services are now available to Convair engineers. Materials for research and development and prototype programs may be withdrawn using forms obtained from the Convair stockroom or engineering supply. Arrow has served the Electronics Division for about three years with shelf items (capacitors, resistors, semiconductors, computer components, etc.), literature, and other services.

The store, open 7:30 a.m. to 4:30 p.m., is located in building 33, col. F-16 (southeast corner). For more information, call Jodi, ED 7461 or 7462.



Convair's Industrial Fire Fighters conduct a hot drill on a cruise missile.

Fire Fighters Combat Flaming Cruise Missile

At our new Fire Suppression Readiness Facility, on a remote area east of the Kearny Mesa complex, our industrial firefighters train to suppress simulated structure, missile, and stored flammable liquid fires. This training demands teamwork, sharpens skills, and develops a preparedness for managing potential mishaps.

'Machinery's Handbook' Available at Big Discount

Employees can order the latest (21st) edition of the "Machinery's Handbook" at a discount of more than 22 percent. The book retails for \$36 but can be ordered through the library for \$29.42, including tax. If you want a copy, bring a check or money order for \$29.42, payable to Wahrenbrock's Book House, to Urban Sweeney in the Kearny Mesa library (KM 1073) or Wayne Turner in Educational Services at Lindbergh Field (LF 8564). Deadline for placing your order is Sept. 23.



Cost Savings Program in Boeing Strut Area

Doug Fenstermacher (at left) of Industrial Engineering (Dept. 241), Harry Gaugh of Operations - Boeing Strut Assembly (Dept. 067), and John Craigie of Tool Service (Dept. 463) are shown with some of the portable pneumatically-powered tools involved in a new cost-saving control system. The three departments cooperated to have each tool color coded to match the seven different production areas of the Boeing strut assembly line. After use by each shift, each tool is returned to its color coded and numbered place in storage cabinets. This procedure reduces the total number of tools required by two-thirds — a significant cost saving.

Convair Honored at Celebration of First Space Shuttle Flight

Convair Division received two awards at the recent Space Transportation System honor awards ceremony celebrating the first Space Shuttle flight on April 12, 1981. The awards were presented at Johnson Space Center, Houston, Texas, on Sept. 11, 1981.

Chuck Wilson, program director for Shuttle/Centaur, accepted the NASA public service group achievement award for Convair's excellent work on the Space Shuttle Orbiter Mid-Fuselage design and production. Lloyd Munson, Orbiter Mid-Fuselage program manager, was awarded the NASA public service medal for his outstanding leadership on this program.

From the CRA

Shape-Up Begins Oct. 12. A new Shape-Up session will begin Oct. 12, 4:30 p.m. at the CRA clubhouse. Register with the Health-Fitness Center, KM 1111.

Take Care of Your Back. A "Back Care Workshop" presented by Dr. Lawrence J. Adams will be held Tuesday, Oct. 27, 5:15 p.m. at CRA. Register with the Health-Fitness Center, KM 1111.

Noon Movie — First Flight of the Columbia

This Rocketdyne film will be shown at Kearny Mesa on Wednesday in classroom 3 of building 17 at 11 a.m. and at noon. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Employment

For the week ending Sept. 13, employment was 8,037.

CONVAIR Weekly Log

September 28, 1981

Published by the Convair Division of General Dynamics

FIRST NIGHT FLIGHT**Another Tomahawk Success**

Tomahawk T17, launched from a Navy A-6 aircraft on Sept. 19, successfully accomplished the first night flight in the T-17 test program. The test flight was to evaluate Tomahawk in-flight guidance performance using a digital scene matching area correlation (DSMAC) illuminator precision guidance system under night conditions.

The test flight over the White Sands Missile Range in New Mexico demonstrated Tomahawk's effectiveness in a simulated night land-attack mission designed to deliver a conventional warhead to a predetermined target. This was the fourth flight in which a Tomahawk T17 was successfully recovered following the test and then returned to Convair to be refurbished for another flight.

Avionics Mfg & Test Helps Put F-16 Back in Action

Avionics Manufacturing and Test (Dept. 050) responded quickly in cooperation with other General Dynamics facilities to modify control harnesses for F-16 aircraft. Last month these Fort Worth-built fighters were grounded worldwide until the harnesses could be modified and reinstalled. General Dynamics Fort Worth Division praised Convair's rework for outstanding quality and delivery well ahead of schedule.



These dedicated people of DC-10 Floor Panel (Dept. 026) and Production Control (Dept. 221) performed an outstanding effort for an appreciative customer. Note the happy, proud faces.

Convair Team Delivers KC-10 Panels in Record Time

McDonnell Douglas Aircraft Co. recently required 27 floor panels on an emergency basis to deliver a KC-10 tanker for flight test. These parts were manufactured at Lindbergh Field within one week, without overtime. Normal manufacturing time is three weeks.

DC-10 Fuselage Delivered on Schedule

Convair delivered DC-10 fuselage 383 to McDonnell Douglas Aircraft Co. on schedule, Friday, Sept. 25.

Thanks Again for Saving on Utilities. Our total utilities bill for August was \$944,339. Electricity cost \$818,756, natural gas \$85,608, and water \$39,975. Lindbergh Field and Kearny Mesa reduced their electrical demand charge by \$4,148, compared to August 1980. Our total utilities bill was \$8,341 less than 1980. Thanks for your help in keeping your air conditioning thermostats set no lower than 78F and turning off all unnecessary lights.

Appreciation to CPR Instructor Joe Harrison He Offers New Classes October 7, 14

Appreciation is extended to industrial firefighter/EMT (emergency medical technician) Joe Harrison for the outstanding job he has done in his ten years of teaching cardiopulmonary resuscitation (CPR). Since the first of this year alone, Joe has certified 263 General Dynamics employees in the CPR technique. His next classes will be offered on Oct. 7 and 14 from 5 to 9 p.m. in the Kearny Mesa cafeteria. To register, call Marion at Lindbergh Field 5667 on Monday, Wednesday, or Friday or KM 1778 on Tuesday, Thursday. There will be a nominal charge of \$3.00 at the time of registration.

Preretirement Planning Seminars Start Oct. 6 & 7

Preretirement Planning Seminar lecture series will begin Tuesday and Wednesday, Oct. 6 and 7, from 5:30 to 7:30 p.m. in the building 2 presentation room, Kearny Mesa plant. Jointly sponsored by Employee Benefits and Educational Services, the two seminars will meet weekly for six weeks. Reservations are necessary and are on a first-come, first-served basis. Call Employee Benefits, KM 2267.

Toastmasters Helps You Communicate

Convair Toastmasters No. 3745 is holding an eight-week speechcraft course designed to improve communication skills.

The course starts Wednesday, Oct. 7, and will continue each Wednesday from 5 to 7 p.m. at the CRA clubhouse. This course is cosponsored by the National Management Association Convair Chapter and the \$5 course fee will be reimbursed to NMA members upon completion. An Achievement Award Certificate will be given, and Toastmasters has applied for the course to count for two units of continuing education credit toward the Certificate in Management Skills.

To sign up, contact Helen Richter, KM 1336, or Bill Pfender, KM 2474. Hurry, because enrollment is limited.

What is an 'FWO'?

FWOs really do exist. Property Administration (Dept. 190-1) thinks everyone should know what they are, how

to use them, and when. An FWO is a Facilities Work Order (Form 5140) which should be used to document every movement of General Dynamics- and government-owned property. These forms should be filled out properly whenever items such as office equipment, commercial test equipment, calculators, etc., are tagged or labeled and relocated.

Whenever you move such equipment, help Property Administration maintain location of facilities: use an FWO and forward it to Ernie Reid, mail zone 24-1901. Even if you have moved in the last six months, send an AVO to Ernie listing the items you have moved and the new location. If you have questions or need help, call Ernie, or Bob Burks at KM 6587. Please help. This is important.

Tour to Planetarium Show Sept. 28

Tonight is the CMA-sponsored Planetarium show at Southwestern College. See you in the southwest parking lot by 6:45 p.m.; have your \$1.25 in change.

EDITH—Theme for Fire Prevention Week, Oct. 4-10

EDITH, Exit Drills In The Home, is this year's theme for Fire Prevention Week, Oct. 4-10. Dwelling fires now claim some 8,000 lives each year in the United States and Canada, and the EDITH plan is a major effort toward reducing this death toll. By planning ahead and practicing escape plans, people can learn important fire safety behavior that can save their lives.

The essential elements of EDITH are smoke detectors and an escape plan. Properly installed and maintained, smoke detectors give off a warning signal to alert people to the presence of smoke and fire in their home. An escape plan that includes at least two exits from every room and a meeting place safely outside the house should be discussed and practiced so that everyone is prepared for a fire emergency. Remember EDITH!

El Cajon Van Pool to KM Seeks Riders

Riders are needed for a van pool serving the 7:30 a.m. to 4:15 p.m. shift. The van picks up and drops passengers in El Cajon at East Main and Madison, Parkway Plaza, and Grossmont Center. Estimated cost is about \$2 a day. Call Carl Wannamaker at KM 1089.

NMA Convair Chapter Meeting Oct. 15

National Management Association Convair Chapter plans a Program Development dinner meeting Oct. 15 at the Sheraton Harbor Island Hotel. Bill Lowery, congressman and representative of California's 41st Congressional District, will be the featured speaker. More information will be available for the next Weekly Log.

KOALA-T KORNER

A true craftsman knows whether the job was done right. Don't wait for an inspector to reject the work. If an error can be corrected, do so. If it can't be corrected, notify your supervisor.



Let's build a quality climate!

Certificate in Management Begins Sept. 28 at SDSU
San Diego State University, in cooperation with the American Management Association Extension Institute, is offering a six-course program, Certificate in Management. Evening classes are scheduled to begin Sept. 28. For additional information, contact Patricia Miller at 265-5705.

Professional Development Course Offered Sept. 30
First line supervisor program course 4, "Interpersonal Relationships," has openings at Lindbergh Field, Wednesday, Sept. 30, from 4 to 6 p.m. in Building 14, Classroom 5. The course is open to all employees at a fee of \$10 for NMA members (refundable upon successful completion), and \$14 for nonmembers. Register with Gary Kranz at KM 1937. Sign up *today*. The course starts Wednesday.

From the CRA

Personal Protection Class Sept. 30. Last chance to register for Personal Protection Class held Sept. 30th, from 7 to 9 p.m. at CRA. Cost is \$12.95 (regularly \$19.95). Call KM 1111 for information.

SD Zoo & Wild Animal Park Discount. 20% off admission tickets from Sept. 21 through Oct. 25. Call KM 1111.

Shape-Up Begins Oct. 12. A new Shape-Up class begins Oct. 12, at 4:30 p.m. Register with the Health Fitness Center, KM 1111.

Scuba Course Starts Oct. 5. Course starts Monday, Oct. 5, at 4:30 p.m. in CRA clubhouse. Bring your swimsuit. Scuba Club meeting Tuesday, Oct. 6, 4:30 p.m. at CRA. For details, call Rich, KM 3388.

Noon Movie — 'Doing Something'

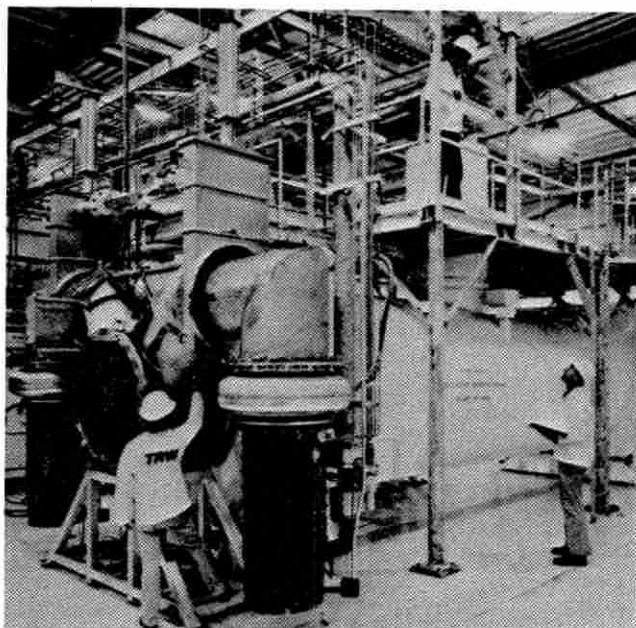
"Doing Something," by the Chemical Manufacturers Association, will take you into the workings of the chemical industry. You will gain an understanding of the steps taken by the industry to ensure a safe, uncontaminated, yet progressive world for you and your family. The film will be shown at Kearny Mesa on Wednesday in Classroom 3 of Building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the Building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Employment

For the week ending Sept. 20, employment was 8,069.

CONVAIR Weekly Log October 5, 1981

Published by the Convair Division of General Dynamics



Progress Report on Convair's Superconducting Magnet

The Preprototype Magnet System (PMS), Convair's first superconducting magnet, has passed all tests and now is in routine operation at TRW. TRW is ahead of schedule in their program aimed at a selection in April 1982 of one of three competing isotope separation systems.

Greg Danninger, program manager, and Dave Walker, chief engineer, will now begin work on the full-sized magnet for the isotope separation system by the plasma separation process (PSP). The PSP magnet with a four-meter-diameter bore is 16 meters long and will weigh 500 tons (PMS is 44 tons). We expect to submit a proposal on this \$30 million magnet system in 1982, with contract start near year end.

Many people contributed to the outstanding success of this magnet program. Energy Systems Program Director Ray Beuligmann thanks everyone.

767 People Have Reason To Celebrate — And Did

On Saturday, September 26, at 11:55 a.m., the first new fuel-efficient Boeing 767 airliner lifted off the runway near Everett, Washington, on its maiden flight. That afternoon, over 1,200 Convair employees and their families gathered to celebrate the flight and recent on-schedule strut assembly deliveries. The Strut program picnic was an opportunity to show well-deserved appreciation to the hundreds of men and women who have been called upon repeatedly to put forth that extra effort to deliver a quality product on a challenging schedule. All deserve many thanks. Entertainment at the picnic was provided by the "GD Strutters" — a talented group of country and western musicians made up of Strut program planners and mechanics led by

Ruby Graves of Planning (Dept. 431). A clown, played by Pat Hogan of Boeing Strut Assembly (Dept. 067), provided lots of laughs and balloon animals for the kids.

Meanwhile, the 767 aircraft began a series of initial flight tests in a ten-month testing program aimed at obtaining FAA certification in July 1982. The two-hour first flight of the \$40 million airliner was judged "A-OK."

QUALITY CIRCLES

QC-3 Right on Target

Last spring, QC-3, the Quality Circle in Avionics Manufacturing & Test (Dept. 050), tackled a problem the department was having with the flow of parts in its work area. On August 18, the Circle made its presentation to management summarizing its four-month analysis of the situation. Members recommended that an in-process dispatcher be hired to monitor and smooth the flow of parts.

On September 22, Miles Stepich, manager of Manufacturing Control, met with the Quality Circle, telling them that management had assessed their recommendation and found it right on target. Shortly thereafter, an in-process dispatcher was hired to carry out the Circle's recommendations.

This project — and its outcome — is typical of the objectives of Quality Circles: employees communication with one another, identifying and analyzing problems, and working together to improve their work environment.

A tip of the hat to QC-3 members for a good job: Anna Allison, Pat Gallegos, Pam Genetti, Len Murphy, Frances Navarette, Pauline Richmond, Erika Rodgers, Russ Stahlak, Nieves Stookins, and Evelyn Ward.

Congressman Lowery at NMA Meeting

Congressman Bill Lowery, representative of California's 41st Congressional District, will speak on Thursday evening, October 15, at the National Management Association Convair Chapter dinner meeting. In the Champagne Ballroom of the Sheraton Harbor Island Hotel, Lowery will speak on "Technology's Frontier/America's Strength."

Tickets are \$10.50 for members and spouses and \$14 for nonmembers. There will be a drawing and some great prizes.

Shuttle Materials Technology

Space Shuttle materials technology is the theme of the American Society for Metals Fall Educational Series. Each of three evening sessions will deal with a different aspect of Space Shuttle material applications: October 7, Space Shuttle engines and tiles; October 14, composite materials; and October 21, the Space Shuttle itself.

All sessions will be held in the KM cafeteria, beginning at 7 p.m. Attend all three sessions for \$25 per person. For reservations, call Dr. Ray Adsit at KM 2766.



Dr. Buchanan Hosts Long Timers at Breakfast

Convair employees who recently completed 35 or 40 years of service with General Dynamics Corporation were honored at a Service Award Breakfast hosted by Dr. Buchanan. The event was held in the KM executive dining room, September 25.

Each long timer received a service award presented by Dr. Buchanan and the employee's division staff member. A color photograph was taken of each person as a memento of the occasion. Special thanks goes to these employees for the experience and knowledge they have contributed to the company's achievement over the years.

Pictured from left to right (years at Convair in parentheses): Gerald Oliver (40), Frederick Hull (40), Joe Gonzales (40), John Silverstein (Division Staff), Herb Prince (35), James Severy (40), Kenneth Camp (40), Ralph Mulroy (40), Terry Sather (40), Lee Fouche (40), Dr. Buchanan, Ed Squires (Division Staff), Ivan Raney (40), Mike Clark (35), Augie Daddi (Division Staff), Forest Hammond (40), and George Vollmer, Jr. (35). Also attending but not pictured was James Leisure (35).

Snow Ski Club Meeting at CRA Oct. 6

The first Snow Ski Club meeting will be held Tuesday, October 6, at 7:30 p.m., in the CRA Pavilion. The theme will be ski physical fitness.

Electrical Power Shutoff at Plant 19 Oct. 10, 18

An electrical power outage is planned for Plant 19 on Saturday, October 10 from 7 a.m. to 3:30 p.m. In all buildings and grounds there will be no electricity, steam, air conditioning, or compressed air. The same will occur on Sunday, October 18, from 7 a.m. to 3:30 p.m., except that the machine shop areas of Dept. 001 in Buildings 1 and 2 will have electricity and compressed air. This outage is required for annual maintenance of the electrical system. Direct all questions to Al Demarus, LF 8215.

New Shape-Up Class Begins Oct. 12. Classes are held on Monday, Wednesday, and Friday at 4:30 p.m. Contact the Health-Fitness Center at KM 1111 for registration and more information.

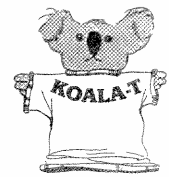
Discounted Entertainment Books. 82 books are available through CRA at \$20 each. Contact Leslie, KM 1111 for information.

SD Zoo & Wild Animal Park. 20% off admission price, now until October 25. Pick up your discount card at the CRA salesbooth at LF or KM.

KOALA-T KORNER

When machining NC parts, remember that each one must be machined in conformance with instructions. To debug a tape before Tool Inspection acceptance, several parts are normally made. On small lots, though, there may never be a "proofed, TI" tape. So even if the traveller calls it a proofing part, it really is a production part. Treat it like one. Let's build quality in!

You — not inspection — make the quality parts.



They Retired in September

Convair's appreciation and best wishes go to each of these employees who retired last month.

Name	Department	Years of Service
Ruby H. Adkins	Graphic Reproduction	23½
Herbert H. Betts	Tool Crib	24
Roger C. Bigaouette	Tool Machine Shop	3
Lupe Blea	Blueprint Files	28
John C. Calhoun	Tool Control	40
William C. Cockerell	Tool Planning	40
Louis H. Cordova	Tool Planning	31
George W. Cowan	Tooling Materials	29
DeVere J. Dougherty	Tool Planning	17
William H. Gavin	DC-10 Floor Panels	21
Audrey M. Granum	Program Development	18½
John R. Graves, Jr.	Plant Fabrication	38
Edward W. Gross	Composites Assembly	25
Charles L. Holland	Manufacturing Technology	40½
Dewayne G. Jackson	Welded S/Assy & Tank Mfg.	24½
Charles E. Kohler, Jr.	WDSC-Computer Aided Mfg.	26
Helen L. Lowe	Receiving	26
Bobby Mann	Custodial Services	11
S. Sipie Martinez	Steel Heat Treat	15
Luther E. McGhee	Vehicle Final Assembly	29
Chester F. Nelson	Transportation Operation	24½
Robert L. Parry	Publications	3½
Albert Phelps	Jigs & Fixtures	21
Normal A. Pointon	Machine Shop	10
Clifford H. Reeh	Planning	30
Robert L. Roffe	Machine Shop	30
James J. Severy	Proof Planning	37
Clifton E. Simpson	Maintenance Operations	22
Neil D. Tracy	Planning	39
James D. Volkov, Jr.	DC-10 Assembly	41
June E. Wallace	Parts Engineering	28
Dwight K. Warner	Planning	22
Colleen M. Woodrum	WDSC—Industrial Relations	21½
Wallace P. Zoellner	VAFB—Industrial Relations	14½

From the CRA

Ski Fitness Class Begins Oct. 22. This class will be held on Tuesdays and Thursdays from 5 to 6 p.m. through December 3. The fee is \$30.00. Instructor will be Mary Ann O'Connor. Contact the Health-Fitness Center at KM 1111 to register and for more information.

Employment

For the week ending Sept. 30, employment was 8,101.

CONVAIR Weekly Log

October 12, 1981

Published by the Convair Division of General Dynamics

Convair & Battelle Win Ultrasonic Imaging Contract

Convair Division and Battelle Laboratories have teamed to win the Ultrasonic Imaging System Development contract from the U.S. Army Missile Command at Redstone Arsenal, Alabama. The prototype system to be developed will be capable of generating real time 3-D holographic images of internal defects that exist in metallic and composite structures.

Developing high technology such as this will enhance Convair's competitive position to win future advanced weapon systems contracts. Congratulations to Bob Majumder, program manager, and Dr. Jack Maughmer, deputy program manager, on a job well done.

Professional Development Class Oct. 22

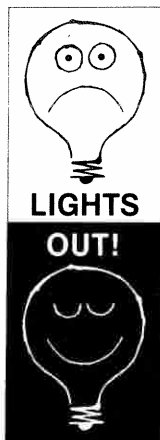
National Management Association Convair Chapter is again proud to offer "Women in Management." This course is geared toward women, but men are welcome because many of the concepts are universal. Topics will range from setting goals to expressing professionalism. Jan Garland will instruct the class, which will be on five consecutive Thursdays from 4:30 to 6 p.m. The fee will be \$5 per attendee (refunded to NMA members upon completion). Classes will be held in the building 25 space conference room, and enrollment will be limited to 24 people. For reservations, call Gary Kranz at KM 1937.

NMA Convair Chapter Meeting Oct. 15

The Champagne Ballroom of the Sheraton Harbor Island Hotel will be the location of the National Management Association Convair Chapter dinner meeting on Thursday, Oct. 15. A Scholarship Fund drawing offers as a grand prize a trip for two via PSA to Puerto Vallarta for four days and three nights at the new, luxurious Pelicanos Hotel. Other good prizes too. The evening is sponsored by Program Development; George Blackshaw is executive host.

You Can Reduce Electricity Bill. *The winter season for electrical billing begins October 1. This means that electricity used during the on-peak period (6 to 10 p.m.) is 10% more expensive than that used during the off-peak period (10 p.m. to 11 a.m.). Electricity during the semi-peak period (11 a.m. to 6 p.m.) is 6 % more expensive than during the off-peak period. Our monthly demand charge is also applied during the on-peak period.*

Please schedule consumption, especially large loads, away from the on-peak period! Turn off lights when they are not needed.



Quality Circle Finds a Better Way

"First Circle," the Quality Circle in Cost Center 07 of the Machine Shop (Dept 015), found a better way of

cleaning up the work area. With the help of Industrial Engineering, Circle members studied how productivity was affected by the time of day that they cleaned their machines. The results of their analysis showed that by moving the cleanup of their machines to the end of the shift, their cost center could gain additional productive time. Furthermore, this procedure could be used in other machine shop cost centers as well.

The Quality Circle presented this information to management, and after studying the data, management made the decision to implement the new cleanup time in Cost Center 07 and wherever else in Dept. 015 it would be applicable.

A tip of the hat to Circle members Ray Castanon, Barney DeLeon Sr., Joe Marino, Leroy Snider, and Horst Stargardt.

EEO Office Answers Your Questions

The Equal Employment Opportunity (EEO) office at Convair has responsibility for developing, coordinating, monitoring, and reporting on our equal opportunity and affirmative action program. Carol Mizer, the EEO administrator, is available to answer any questions or problems you may have Monday, Wednesday, and Friday at KM 2255 and Tuesday and Thursday at LF 8919. Assisting Carol in answering questions and providing information about EEO are:

Department	Coordinator	Ext No.
Quality Assurance	Joe McCafferty	2465
Finance	Dick Wilson	2214
Program Development	Norm Rutherford	1153
Contracts & Estimating	Cissy Campbell	1287
Research & Engineering	Sara Boehmer	2705
	Wayne Woods	2525
Material	Chuck Patmon	8232
WDSC	Donna Kaptain	3178
Operations	Jim Macoubray	8023
Integrated Logistics	Roy Sommers	1496
	Frank Rojas	3617

POL Training Sessions Begin Oct. 16

Six Procurement On-Line (POL) training sessions are scheduled for Kearny Mesa and Lindbergh Field.

Place	Date	Times
Kearny Mesa		
Mockup Conference Room B, Building 5	Oct. 16	9 - 10:30 a.m. 1 - 2:30 p.m.
Lindbergh Field		
Engineering Auditorium 2nd Floor, Building 5	Oct. 19	9 - 10:30 a.m. 1 - 2:30 p.m.
Lindbergh Field		
Engineering Auditorium 2nd Floor, Building 5	Oct. 23	9 - 10:30 a.m. 1 - 2:30 p.m.

Beginning Oct. 26, the On-Line PARTS system will no longer be operative. If you have questions about the POL training classes, contact Jim Cleghorn, LF 5521.

Where is the KM Plant?

As a result of an employee suggestion, you will soon see street signs at the Kearny Mesa plant. Access Road 4 will be identified as Convair Drive. Street signs will be placed at the intersection of Kearny Villa Road and Ruffin Road, and also at Missile Road and Convair Drive. This will assist people who are unfamiliar with our Kearny Mesa plant, whether visiting or making a delivery.

Last CPR Class This Year — Sign Up Now

The last class of the year for cardiopulmonary resuscitation will be held Oct. 14 from 5 to 9 p.m. in the Kearny Mesa cafeteria. There will be a \$3 charge at registration. For information, call Marion at LF 5667 on Monday and Wednesday; and at KM 1778 on Tuesday.

Parking for East County Commuters

The County of San Diego and City of La Mesa have opened a 123-space park and rider lot on Palm Avenue near Spring Street in La Mesa. This lot is available free of charge for employees who carpool, vanpool, or use a subscription bus.

If you have any questions call 237-POOL.

Tour San Diego Union-Tribune Plant Oct. 28

A 90-minute tour of the Union-Tribune plant, sponsored by the NMA Convair Chapter, will start at 7 p.m. on Wednesday, Oct. 28. The touring group, limited to 35 people, will see a film and one of the most modern newspaper plants. For details and reservations, call Jan Lawrence at KM 1108 or 3324.

DSD/Western Center Hosts SDSU Data Processing Program

Data Systems Division/Western Center is participating for the third year as a host site for the San Diego State University Information Systems Data Processing Practicum Program. As a host site, Western Center provides students the opportunity to work in its Systems Development and Programming Dept. 520-0.

The 12-week program, from September through December 1981, offers students hands-on experience through project assignments. The 11 participating students work as members of project teams for a total of 120 hours per student. The projects this year include System Productivity Facility (SPF) Menu Systems, Automated Report Tracking, Production Productivity Improvements, and Data Dictionary Extensibility. Students also learn to use tools of the IBM environment while interfacing with data processing professionals.

Share Yourself With Others

during the

BLOOD DRIVE — NOVEMBER 2 - 6

Ziggy will thank you with an all-new

RED T-SHIRT

Reservation Details Next Week

KOALA-T KORNER

If you work with or handle electrostatic-sensitive electronic parts and pyrotechnics, remember: always use the grounding wrist straps provided for this purpose. When in doubt, check with your supervisor.



Corporate Stock Plan Values for August

Salaried	1979	1980	1981
Government Bonds	\$ 2.2214	\$ 2.4357	\$ 2.6163
Diversified Portfolio	1.5843	1.9194	2.0366
Fixed Income	1.0235	1.1167	1.2385
Hourly			
Government Bonds	\$ 2.2063	\$ 2.4335	2.6133
Diversified Portfolio	1.5872	1.9580	2.803
GD Stock	\$22.3750*	\$35.8125*	\$22.8750

*Reflects 2-for-1 stock split of November 1980.

From the CRA

New IBM Personal Computer Demo at CRA. Come take a short ride on the crest of the third wave! At its next meeting, Wednesday, October 14, at 4:30 p.m., in the CRA clubhouse auditorium the personal Computer Club of CRA has arranged to have a demonstration and in-depth discussion of the new IBM personal computer. Due to widespread interest in this system, the meeting will be open to all General Dynamics employees, their friends, and associates.

Coastal Navigation Class by USCG Auxiliary. Flotilla 16-4 (United States Coast Guard Auxiliary) is offering training in time and distance calculations, map reading, course plotting, and landmark/buoy recognition. Lessons start Wednesday, Oct. 21, and continue on subsequent Wednesdays for five weeks from 7 to 9:30 p.m. at the CRA clubhouse. This course is free; there is a nominal charge for materials if a text is desired. Navigation items may be ordered through the instructor. To enroll, call Leslie at KM 1111.

Special Discount for Christmas Portrait Cards. Say Merry Christmas in a special way with portrait Christmas cards. CRA has arranged for portrait sittings from 5:30 to 9 p.m. at the CRA clubhouse, Oct. 14 through Nov. 14. Available to all General Dynamics employees and families — at real discount prices. To arrange for an appointment, call Leslie at KM 1111.

Noon Movie — 'Down to the Sea'

See how ships were built and launched a few years ago by General Dynamics Quincy Shipbuilding Division at Quincy, Massachusetts. The film will show you the preparations required to free a ship from its dry dock and help you experience the thrill of watching the vessel slip down to the sea.

The film will be shown at Kearny Mesa on Wednesday in Classroom 3 of Building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the Building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

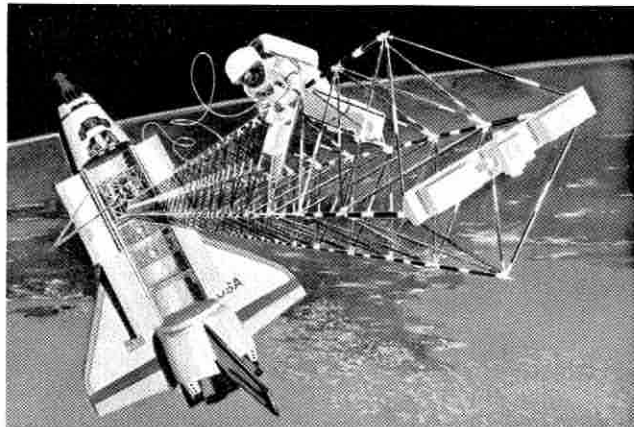
Employment

For the week ending Oct. 4, employment was 8,110.

CONVAIR Weekly Log

October 19, 1981

Published by the Convair Division of General Dynamics



Follow-on for Space Construction Experiment

Convair recently completed the initial phase of the Space Construction Experiment Definition Study (SCEDS) for the NASA Johnson Space Center. This basic flight experiment is expected to be flown on the space shuttle in 1985 to provide early data on the structural behavior and control of large, deployable space structures. It will also be used to test a variety of manned construction operations using the extra-vehicular activity (EVA) and remote manipulator system (RMS) capabilities of the shuttle orbiter.

NASA JSC has awarded additional Convair funds for SCEDS follow-on activities to provide a phase B system definition of the experiment and to develop ground test and integration plans. NASA Langley Research Center will participate in the Part II definition study to establish requirements for large space antenna feedmast experiments which are to be incorporated in the basic experiment.

Convair to Have Credit Union

Last Friday credit union information packages were sent to the homes of San Diego-based Convair employees. In addition to information regarding the credit union, a membership application and payroll deduction authorization were included so that interested employees could proceed with joining. If you don't receive your information package by mid-week, contact Employee Benefits at KM 1554 and they will forward one to you. Questions regarding the credit union may be directed to the main branch of Point Loma Federal Credit Union, 226-1600. During the initial signup, a representative of the Point Loma Federal Credit Union will be onsite Tuesdays and Thursdays, 2:30 to 4:30 p.m., at LF 5670.

Con-Trib Club Annual Campaign

The annual Employees' Con-Trib Club membership campaign begins today and runs through Oct. 23. This year's goal has been set at \$700,000. To achieve this goal, overall membership must increase from the present level of 70.6% to 90%, and the percentage of Fair Share givers from 21.9% to 30%.

The Con-Trib Club is a giving opportunity, through payroll deduction, that serves to assist fellow employees through the Emergency Aid Fund. Additionally, a substantial amount of Con-Trib funds is pledged annually to the local United Way campaign. Agencies not affiliated with United Way are funded at the discretion of the Employees' Con-Trib Club Board of Directors.

Please extend your efforts to ensure a successful campaign by signing your pledge card today.

NMACC Professional Development Course Begins Oct. 28

"Discussion for Learning" is a course providing practical exercises in leading group discussions. Key topics include getting the most out of, and controlling, group discussions. The six-week class will meet on Wednesdays from 4:30 to 6:30 p.m. starting Oct. 28, in the Mockup Conference Room in Bldg 5 at Kearny Mesa. The \$12 registration fee is refundable to NMACC members upon course completion. The class is open to all employees; to register call Randy Torres at KM 1809.



From left, GD President Oliver Boileau, Convair Program Development Vice President George Blackshaw, Secretary Lehman, and Cruise Missile Deputy Program Director Bernie Kuchta with our full-scale MRASM mockup.

Secretary of the Navy Visits Convair

Secretary of the Navy John Lehman, accompanied by Vice Admiral Lee Baggett, commander of the Surface Fleet, and Vice Admiral Dutch Schoultz, commander of Naval Air in the Pacific Fleet, were at Convair on Oct. 8 for briefings on our Tomahawk and MRASM programs and a tour of the cruise missile assembly line.

Visit

Representatives of the Royal Air Force's Aerosystems class were here on Oct. 7 for briefings on all Convair programs.

Women's Opportunities Week

Mayor Pete Wilson has proclaimed the week of October 19-24 as Women's Opportunities Week. The event is

designed to increase awareness of the opportunities available to women today and recognize the contributions of women to the community.

The Convair Chapter of NMA is sponsoring a "Women in Management" class beginning on Thursday, October 22, at 4:30 p.m. Since the number of women entering the work force has substantially increased over the past 10 years, the class should be of great interest to both men and women. For details regarding this class contact Gary Kranz at KM 1937.

A list of Women's Opportunities Week activities scheduled throughout San Diego is available in the KM lobby, LF employment office, or KM EEO office.

Share Yourself in the Blood Drive Nov. 2-6

A special five-day blood drive will be held on November 2 and 3 at Kearny Mesa, 8:00 a.m. to 1:00 p.m.; Nov. 4 and 5 at Lindbergh Field, 8:00 a.m. to 1:00 p.m.; and Nov. 6 at Plant 19, 11:30 a.m. to 4:30 p.m. Employees wishing to participate may call KM 1811 and LF 8244 for an appointment, starting today.

As a donor, you have the opportunity to replenish our Employees' Blood Reserve Fund or establish membership in the Blood Assurance Plan Donor Club sponsored by the San Diego Blood Bank. Either way, "share yourself" and help surpass our 1980 donation record of 1,187 pints.

Red "Ziggy" t-shirts will be given to all donors.

Security Inspection

The Defense Investigative Service Office (DIS) of Industrial Security will conduct its semiannual security inspection of our facility beginning October 26 and lasting approximately one week.

Your cooperation with the DIS representatives and our security officers will be greatly appreciated. Any questions or assistance regarding preparations for this inspection will be handled by the security staff. Call KM 1471, Security and Investigations.

Convair Aircraft Owners/Operators Meet in San Diego

Owners and operators of Convair's twin-engine 240, 340, 440, 600, 640, and 580 aircraft gathered in San Diego to attend a two-day meeting hosted by Convair's Aircraft Logistic Support department. The well-received program was devoted to ensuring the continued airworthiness and structural integrity of these aircraft. The 57 operators came from all over the U.S. and Canada plus points as far away as Norway.

KOALA-T KORNER

Pencil Marks Can Damage Hardware

Attention engineers, production personnel, and supervisors: The graphite in ordinary pencils can corrode aluminum. Do not mark hardware with them. Special "pencils" are available for factory use.



Quality Circle Makes Presentation

"The Motivation Crew," Receiving Inspection's Quality Circle (Dept. 358-0), delivered their first presentation to management on Monday, Oct. 5. The presentation consisted of an update on their accomplishments and a recommendation on how to solve a problem that their area was experiencing. Much time was being spent retrieving specifications that the inspectors needed from reference books. The Circle analyzed the problem, collected data, and on the basis of this information, recommended that an information handling system be installed. This system would have up-to-date military and vendor specifications on microfilm, making specs easily retrievable.

A tip of the hat for a well prepared presentation to Circle members Bill Allen, June Bryant, Helen Gallent, Louie Gordon, Frank Hogan, Bob MacDonald, Cathy Purdue, Milt Rosengren, Al Sack, Marvin Snell, Pam Sofia, Jane Sorg, and Laurel Weidenkeller.

From the CRA

Magic Mountain Discounts. Magic Mountain is offering special discount rates for the month of November. The price of general admission is \$5.95, a savings of \$5.00 off the regular seasonal admission price. For more information call Leslie at KM 1111.

Back Care Series. Backcare Workshop, a free lecture presented by Dr. Lawrence J. Adams, will be held Tuesday, Oct. 27, 5:15 p.m. at the CRA clubhouse. Register with the Health Fitness Center.

Noon Movie — 'Ski Winter Park'

Come see Winter Park, Colorado's oldest and best-kept secret skiing area.

The film will be shown at Kearny Mesa on Wednesday in classroom 3 of Bldg 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the Bldg 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Employment

For the week ending Oct. 11, employment was 8,131.

CONVAIR Weekly Log

October 26, 1981

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Atlas/Centaur No. 58 Heads for ETR

Atlas/Centaur No. 58 was air transported from Miramar Naval Air Station aboard a C-5A cargo plane Tuesday, Oct. 20. The launch vehicle was flown to the Eastern Test Range (ETR) where it will be used to place the fourth Intelsat V in orbit during the first quarter of next year. AC-55 is already at ETR in preparation for launch of another Intelsat payload on Dec. 5.

Highest IRAD Brochure Score Ever

Congratulations to all those who contributed to the 1981 IRAD brochure. We recently received our score from the Air Force and it is the highest ever received by any division of General Dynamics. This outstanding score will allow us to renegotiate with the Government the amount of discretionary resources Convair is allowed in 1981, resulting in increased profits.

For those of you who don't know what IRAD stands for, it means Independent Research and Development. Under IRAD funding we develop technologies for our advanced programs and new business opportunities. Thus, the research done under IRAD is a key factor in Convair's future.



From left to right: Dave Williams, 40 yr; Munroe Jones, 45 yr; Sed Atwood, 40 yr; George Simpson, 40 yr; Charles Harper, Jr., 35 yr; Ed Squires (Div. Staff); Dr. Buchanan (General Manager); Burt Mercer, 40 yr; John McDonough, 40 yr; Steve Rivas, 40 yr; Martin Brombach, 35 yr; Jay Hawley, (Div. Staff); Ketta Bennett, 35 yr; Edward Jankowski, 35 yr; Sid Wilkinson (Div. Staff); John Leadaman, 40 yr; Cecil Hultz, 40 yr; Russell Hall, 35 yr.

Dr. Buchanan Hosts Long-Timers at Breakfast

Convair employees who recently completed 35-40 years of service with General Dynamics Corporation were honored at a Service Award Breakfast hosted by Dr. Buchanan. The event was held in the Kearny Mesa executive dining room, Friday morning, Oct. 16, honoring these employees for their many years of dedicated, loyal service.

Each long-timer received a service award presented by Dr. Buchanan and the employee's division staff member. A color photograph was taken of each presentation and given to the awardee as a memento of the occasion. Special thanks to these employees for the experience and knowledge they have contributed to the company's achievements over the years.



Seated at their switchboard from left to right are Susan Anderson, Beverly Beatcher, Barbara Pelekai, Eloise Dyer (group leader), Myra Ganes, Sandra Nuding, Jacquelyn Dressel, and Patricia Odencrantz. Shirley Langford (not present in photo) is supervisor.

Introducing the Convair Switchboard Operators

Have you ever wondered about the people connected to the voices who answer the 7,000 daily telephone calls to Convair? Our Convair operators (pictured) assume this responsibility, as well as the handling of all conference, emergency, INWATS, information, and international calls, in an efficient and professional manner.

Convair Gives All-Out Effort

Recently, we proved that Convair can meet the tightest of schedules. We received notice on Friday night, Oct. 16, that McDonnell Douglas had a DC-10 aircraft grounded in Europe due to a lack of two detailed parts which Convair produces but are not spare items. Our customer asked for an "all-out effort" to get the aircraft back in service and Convair responded. The parts, which normally would have taken 60 days to produce, were delivered by our operations team within 36 hours. Kudos to the employees working with Carl Scott, Sheet Metal and Processing; Reggie Sanchez, Quality Assurance; Dick Ingraham, Manufacturing Control; and Phil Poehlman, Material and Shipping.

Oliver Boileau to Speak at Cruise Missile Night

General Dynamics President, Oliver C. Boileau, will be featured speaker at the Convair Management Association Cruise Missile Night. The meeting will be on Tuesday evening, Nov. 17, at the Town & Country Hotel. The evening is being sponsored by the Cruise Missiles Program Office. Bill Dietz is executive host.

Credit Union Signups

Applications by mail are flowing in smoothly, reports Ellen Schmall of the Point Loma Federal Credit Union. A confirmation of acceptance with additional information on available services is being mailed out within one to two days. You can help by ensuring that all items on

FLIP

your membership application are completed, and that you enclose a check or money order for a minimum of \$10 (\$5 membership fee, \$5 share deposit) in the self-addressed envelope. Subsequent deposits can be handled by payroll deduction.

A few incomplete applications have been received at the Credit Union office, resulting in further contact with the applicant and a delay in starting membership.

Convair employees opened over 300 new accounts during the first few days of business. Remember, complete all information requested and forward along with a \$10 check or money order.

Peak Demand Period

With the return of Standard Time on Oct. 25, the on-peak, or most expensive period for electricity is 5 p.m. to 9 p.m. Our monthly demand charge is applied during the on-peak period. Please try to schedule electrical loads for other than the on-peak period whenever possible. Make sure your lights and equipment are turned off at the end of your shift.

Still Time to Sign Up for Blood Drive Next Week

Room is still available for more donors to "share themselves." They're needed to keep our reserve account at the San Diego Blood Bank at the highest possible level so that we can continue to provide no-charge replacement service for Convair employees.

So, lend your arm and then pick up a free, red-stencilled Ziggy T-shirt. For appointments:

Place	Time
Kearny Mesa	Mon. & Tues., Nov. 2-3
Fire Station - Bldg. 6	8:00 a.m. - 1:00 p.m.
Call KM 1811 (Fire Dept.)	
Lindbergh Field	Wed. & Thurs., Nov. 4-5
Classroom 1, Bldg. 2	8:00 a.m. - 1:00 p.m.
Call LF 8244 (Fire Dept.)	
Plant 19 - Trailer	Friday, Nov. 6
Outside Bldg.	11:30 a.m. - 4:40 p.m.
4 FA Entrance	
Call LF 8244 (Fire Dept.)	

From the CRA

Ice Capades. Nov. 4 and 5 at 8:00 p.m. — \$6.00 and \$5.00; Nov. 7 at 12:00 noon and 4:00 p.m. — \$5.00 and \$6.50; Nov. 8 at 6:00 p.m. — \$6.50 and \$5.50.

For more information call CRA at KM 1111.

Magic Mountain. Magic Mountain's Nov. special is a \$5.95 general admission (a savings of \$5.00 from the regular \$10.95 price). Tickets are available at CRA.

Pacific Theater. CRA is now selling Pacific Theater tickets at a discount price of \$2.25. Pacific Theaters include Cinerama, La Jolla Village 4, Center Cinemas, Clairemont Cinemas, and Cinema Grossmont.

These special discount tickets are valid ONLY Sunday through Thursday.

Ski School Available

The San Diego YMCA, in conjunction with the Convair Don Diego Ski Club, will conduct a dry land ski school for people interested in learning the basics of snow skiing. The classes will be held in Balboa Park across from the puppet theater on Nov. 1, 8, and 15, with the final class on snow. For information call the YMCA at 232-7451 or Mike Burz at 578-4778.

KOALA-T KORNER

Help fight corrosion.

During the last rainy season, a lot of money was lost because of corrosion-damaged raw material and machined parts that had to be scrapped. Here are tips on preventing corrosion:



- Cover raw material in long-term storage.
- Protect stock and machined parts with oil.
- Report leaks.
- Don't leave carts of materials outside overnight.
- Keep supervision advised of conditions.
- Care.

KC-10 Fuselage No. 384 Shipped

Fuselage No. 38Y was delivered to McDonnell Douglas last Thursday, Oct. 22, on schedule. This was KC-10 tanker No. 8.

Noon Movie — 'Billion-Barrel Bonanza'

A vivid presentation of one of today's most challenging ventures: wresting oil from the often-stormy North Sea.

At Kearny Mesa, showings will be on Wednesday in Classroom 3 of Building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the Building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

El Cajon VanPool to KM Seeks Driver & Rider

An existing Vanpool is looking for a relief driver for the 7:30 a.m.-4:15 p.m. shift. Cal-Trans will aid in obtaining a second-class license. The Vanpool serves East El Cajon, Parkway Plaza, and Grossmont Center. Those interested in riding or driving may contact Carl Wanner at KM 1089.

Tour San Diego Union-Tribune Oct. 28

Those who have reservations for the Convair Chapter NMA-sponsored Union-Tribune plant tour are reminded that it takes place this Wednesday, Oct. 28, 7:00 p.m.

Contact Lenses

In addition to the safety glasses special previously announced, effective immediately and for a limited time only, Bausch & Lomb soft contact lenses will be \$39 per pair plus the exam fee at the group rate.

Call the Safety Office, LF 8186, if you have any questions.

Time for Las Vegas

The fifth annual preholiday Las Vegas trip is scheduled for Dec. 4, 5, and 6. Limited to two buses only with a sign-up deadline of Nov. 2, the package \$75 per person. Make reservations and get information at the CRA box office in the clubhouse.

Last Chance for Ensenada

This is the last week to make reservations for CRA Travel's Ensenada Shopper. The full-day tour includes cocktails, lunch, and free shopping time on Saturday, Nov. 7. Price is \$27 per person. Make reservations at the CRA box office.

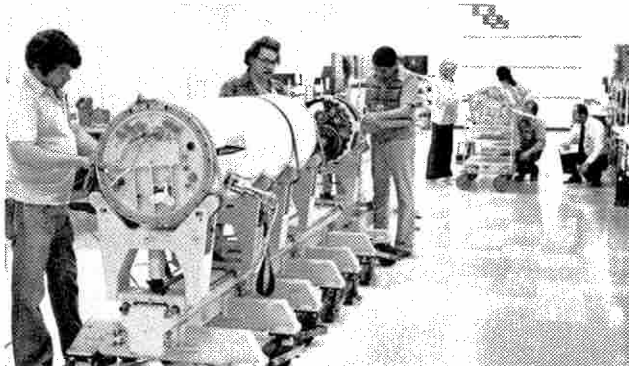
Employment

For the week ending Oct. 18, employment was 8,152.

CONVAIR Weekly Log

November 2, 1981

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The first production Tomahawk missile, TLAM-C T104, is scheduled to be delivered in January. It is shown here (foreground) in final assembly, with, left to right, Bill Johnson, Louis Reza, Tony Gamboa, Dorothy Mandell, Mary Lacy, Len Murphy, and Dale Covert.

Tomahawk T52 Successful Flight Test

Tomahawk T52, a conventional land attack vehicle, was successfully launched from the USS *Guitarro* on Oct. 27 and performed a land attack mission over the Inland Test Route to the Tonopah Test Range in Nevada. T52, after an error-free flight, impacted the target net at Tonopah, demonstrating the high accuracy achievable with terrain following (TERCOM) guidance and Digital Scene Matching Area Correlation (DSMAC) terminal update.

This flight marked the resumption of Development Testing/Operational Testing (DT/OT) and Operational Evaluation Testing (OPEVAL), which will include four more flight tests during November and December. These DT/OT and OPEVAL flight tests are conducted totally by Navy personnel and lead to full operational capability. Continued success is essential to attain initial operational capability (IOC) early next year. It is made possible by the dedicated, untiring efforts of our entire Tomahawk team. Congratulations to all who had a part in preparing T52 for flight; keep up the good work.

Open House for KM, LF, & Plant 19 — Nov. 21
On November 21, 1981 from 9:00 a.m. to 2:30 p.m. Convair, with the assistance of our NMA Convair Chapter, will host an Open House at our Kearny Mesa, Lindbergh Field, and AF Plant 19 facilities. All Convair employees, families, and friends are invited.

SHARING YOURSELF BEGINS TODAY

Donation Sites for Blood Drive This Week

Place	Time
Kearny Mesa Fire Station - Bldg. 6	Mon. & Tues., Nov. 2-3 8 a.m. - 1 p.m.
Lindbergh Field Classroom 1, Bldg. 2	Wed. & Thurs., Nov. 4-5 8 a.m. - 1 p.m.
Plant 19 - Trailer Outside Bldg. 4 FA Entrance	Fri., Nov. 6 11:30 a.m. - 4:30 p.m.
Don't forget: pick up your free, red-stenciled Ziggy T-shirt.	

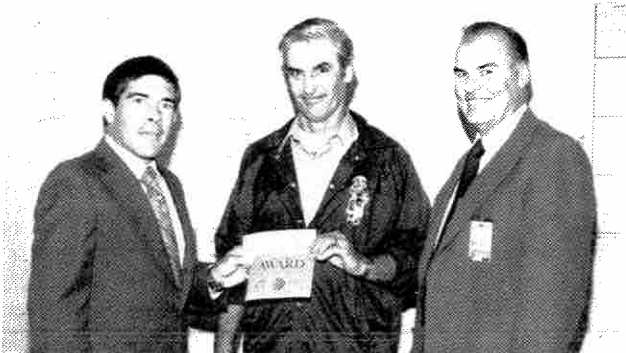


Demonstrating the new flat-sheet deburr system, from left to right, are Gary Huot (operator), Dave Rousey (general foreman, Dept. 002), Art Morgan (industrial engineer), Steve Mitchell (operator), Kip Chambers (Facilities Planning), and Ron Walters (Dept. 001 supervisor).

Sheet Metal Fab., Dept. 001, Has New Deburr System

Installation of the new flat-sheet, wet deburr system for Sheet Metal Fabrication, Dept. 001, has been completed. The system consists of a unit to clean and degrease parts and a wet deburr unit to deburr and polish parts. With the two units in tandem, one operator can now clean, deburr, and polish automatically, in a single operation.

Major savings in transportation time, equipment usage, and manpower are achieved by not having to go to another building for cleaning between fabrication operations.



Dick Golem (Dept. 019), center, receives an employee suggestion award and check for \$1,306 from John Shaw (left), director of Aircraft Assembly. Bill Walker, general manager of Composites & Metal Bond (Dept. 019) is shown at right.

Employee Suggestion Pays and Saves

An employee suggestion for changing procedures in bonding and curing the lining in cruise missile canisters paid off handsomely for Dick Golem while saving time and money for Convair. Dick received \$1,306 and an award for his suggestion, which reduced three bonding operations to one and saved two autoclave cures. Manhours were reduced and autoclave energy was saved.

Dear Convair friends,

Thank you for your concern after the loss of my brother Chuck.

The support you extended to Donna and me and other members of our family was appreciated very much.

Jo Buchanan

New Technology Report Receives NASA Recognition

NASA has awarded a certificate and cash award to R. "Bob" Bailey, Quality Assurance manager for the Orbiter Mid-Fuselage program. Dr. Buchanan presented Bob his framed certificate and check on Oct. 19 for his report, "Weld Wire Alloy Identification." This report describes a procedure for identifying any unauthorized welding filler wire before use. Time and cost savings result from increasing the production rate, minimizing human interface, and certifying entire spools of wire before use. No known application of this technical innovation existed within the aerospace industry. Rockwell International has selected this method over previous techniques and directed its other subcontractors to employ the same method. The report has been proposed for publication as a NASA Tech Brief.

Join or Make Changes to Stock Investment Plan in November

November is the month for you to join (if you have one year of service) or change options or percentage of deduction in the savings and stock investment plan. If you now have one year of service with General Dynamics and have not been contacted about the plan, call Employee Benefits at KM 2559 for signup information or to clarify your eligibility. It's especially important to do so if you were hired during the last several months and have previous General Dynamics service.

Detailed plan information and enrollment and change forms are available at Employee Benefits. Questions may be directed to KM 2559.

Security Reminder for CM Final Assembly & Checkout Areas

The Cruise Missile Final Assembly and Checkout areas are security-controlled work areas. All personnel who have unlimited access have been issued door entry badges. Employees are reminded that the badges are for their personal use only. All other employees must obtain entry clearance from Final Assembly and Checkout supervision. Convair's objective is to minimize personnel and traffic in these security-controlled areas.

Tour of United Way Agencies Kicks Off Con-Trib Drive

On Wednesday, Oct. 14 and Thursday, Oct. 15 Convair employees, selected at random, toured three United Way agencies to kick off the 1981 Con-Trib Club Campaign. Fifty employees were chosen for each day's tour

KOALA-T KORNER Identification of Part(s)

Each of our many programs has its own peculiar requirements of what, where, and how to identify detail parts, assemblies, and installations per blueprint and/or specifications. This is very important for traceability, accountability, follow-up review, and most important for re-constructing past history.



which visited the Salk Institute, Arrow Center for Retarded Citizens, and United Cerebral Palsy Association. The tour concluded with lunch in the CRA auditorium.

Employees responded that the tour was very worthwhile, provided them with an opportunity to see for themselves how Con-Trib funds are used.

Oliver Boileau to Speak at Cruise Missile Night

General Dynamics President Oliver C. Boileau will be the featured speaker at the of NMA Convair Chapter's Cruise Missile Night. The meeting will be on Tuesday evening, Nov. 17, at the Holiday Inn at the Wharf. There will be a drawing and some great prizes. The evening is being sponsored by the Cruise Missiles Program office. Bill Dietz is executive host.

From the CRA

Special Discount Christmas Portrait Cards. Say Merry Christmas in a special way with portrait Christmas cards. CRA has arranged for portrait sittings from 5:30 - 9 p.m. at the CRA Clubhouse, Oct. 14 through Nov. 14. For more information and appointments, call Leslie, KM 1111.

Discount "Entertainment '82" Books. Entertainment '82 books are now on sale at CRA. Cost is \$20 (regularly priced at \$22.50). Books are available at both the KM and LF Salesbooths. For more information call Leslie at KM 1111.

Noon Movie — "Monuments"

This enlightening feature pays tribute to our world's builders from ancient times to modern day. Today's builders, thanks to advanced technology, can erect "monuments" (highways, pipelines, dams) that are far more challenging and beneficial than those of antiquity. Inspiring determination and modern tools combine to create an even better world.

At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Employment

For the week ending Oct. 25, employment was 8,145.

CONVAIR Weekly Log

November 9, 1981

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Oliver Boileau Will Speak at NMA Meeting Nov. 17

General Dynamics President Oliver C. Boileau will be the featured speaker at the NMA Convair Chapter's Cruise Missile Night. The meeting will be held on Tuesday evening, Nov. 17, at the Holiday Inn at the Embarcadero. Mr. Boileau will show film highlights of the Trident sea trials, the cruise missile target hit flight, and the F-16 aircraft.

The scholarship fund drawing will include a surprise grand prize, along with many other good prizes. The dinner is only \$5.50, and tickets are limited to management association members and spouses only. Hurry, get your tickets now. It promises to be an exciting evening. The meeting is being sponsored by the Cruise Missiles Program Office. Bill Dietz is executive host.

Convair Open House Nov. 21

You, your family, friends and neighbors are invited to Convair's Open House on Saturday, Nov. 21.

All three plants — Kearny Mesa, Lindbergh Field, and Plant 19 — will be open from 9 a.m. to 2:30 p.m. Everyone is welcome to tour our facilities and gain a first-hand look at our Atlas, Centaur, Tomahawk, and DC-10 production lines. There will be exhibits, movies, and tours of the factories and laboratories. Many of our new computer-controlled machines will be operating, along with special demonstrations of some of our latest efforts in scientific and manufacturing technology.

A joint effort of Convair and the NMA Convair Chapter, the Open House will be a fine opportunity to show your family and friends where you spend your working hours, and to let them see an actual Atlas, Centaur, and cruise missile. Space shuttle is prominent on TV these days, and guests touring Plant 19 will be able to see where we build the 60-foot-long mid-fuselage section of the orbiter.

Many other attractions are planned. Watch the Bluesheet for details next week.

Congratulations to our Convair team for their work on the U.S. Savings Bond campaign.

Of the 20 corporate divisions and subsidiaries, Convair achieved third place with a strong 90% participation. (Placing first and second, respectively, were General Dynamics Credit, with 21 employees and 100% participation; and Corporate Headquarters, with 431 employees and 95% participation.)

I want to congratulate and thank each of you who conducted and participated in this fine team effort for such a vital national program.

Dr. L.F. Buchanan
General Manager

Please Park Your Vehicles Properly

Employees driving their personal vehicles to work are reminded of Convair's parking rules and regulations. Violation of these rules may result in your vehicle's being towed away, so you are urged to observe the following parking policies: reserved parking areas are for authorized personnel only; park completely within the painted lines; park with the rear of your vehicle toward the traffic flow aisle; passes for specifically authorized parking should be displayed on the vehicle's windshield. Improperly parked vehicles will be towed away at the owner's expense.

Professional Development Course Starts Nov. 16

"Critical Incidents in Management" is being offered by the NMA Convair Chapter at Lindbergh Field, Monday, Nov. 16, from 4 to 6 p.m. in building 4, MIC room (Management Information Center). In the six 2-hour sessions, participants will learn how to take a systematic approach to problem solving; appreciate the need for timely resolution of problems; and apply management principles in the problem-solving environment. The course fee is \$10 (refundable to NMA members upon course completion). Register with Randy Torres at KM 1809. Sign up today; attendance is limited.

Wear Safety Glasses in Eye-Hazardous Areas

During the past several weeks, eye safety has been greatly emphasized. "Show & Tell" safety meetings have been held at all three plants. Special prices for prescription glasses are in effect. The safety audit has disclosed that virtually all production employees working in eye-hazardous areas are protecting their vision by wearing approved safety glasses. However, we are still confronted with an alarming number of employees who lack eye protection when entering hazardous areas. Everyone working in these areas, whether it is for five minutes at a time or all day, is requested to cooperate by wearing approved safety glasses.

These People Retired in October

Appreciation, best wishes, and happy retirement to each of these employees who retired last month.

Name	Department	Years of Service
Ferman Carrillo	Maintenance Operations	28
John E. Cook	Engineering Test Support	13½
Mildred G. Dishman	Space Engineering	17½
Robert W. Fassler	Space Contracts	30½
Olympia P. Fry	Shop Order	31
Arthur F. Homan	Machine Shop	18
Herbert D. Prince	Engineering Test Support	35
Marvin O. Ramsey	Tool Crib	40
Hartsel G. Rexroad	Template Shop	42
Michael Richardson	DC-10 Assembly	34
Milton C. Rosengren	Receiving Inspection	25
John A. Ross	Tooling	40
Merrill H. Scott, Jr.	Space Test Planning	31

Pride Makes The Difference

Congratulations to the following employees who recently won EXCEL awards. Their valuable contributions to Convair are important to our continued success.

Bob Chadwick	Tom Maslo
Earl Christian	W. H. Merrill
Joe Cimenski	Armando Morales
Peg Emerson	J. J. Olivarría
Elizabeth Fox	Mike Ozaki
Cecil Gudmundson	Marceau Peccini
Robert Hinton	Steve Shifman
Mel Ishmael	Pete Sterling
John Jackoskie	Jim Stevens

Corporate Stock Plan Values for September

Here are the unit values in dollars for the General Dynamics savings and stock investment plan as of Sept. 30.

Salaried	1979	1980	1981
Government bonds	\$ 2.2214	\$ 2.4397	\$ 2.6551
Diversified portfolio	1.5843	1.9671	1.9331
Fixed income	1.0235	1.1258	1.2494
Hourly			
Government bonds	2.2216	2.4374	2.6522
Diversified portfolio	1.6204	2.0068	1.9745
GD stock	\$22.3750*	\$34.2500*	\$22.2500*

* Reflects 2-for-1 stock split of November 1980.

EXCEL Committee Accepting Nominations for General Manager's Award

Each year the EXCEL committee aids in selecting the General Manager's Award for Convair's Employee of the Year. All members of supervision may nominate employees for this award, which is the highest award in the division. Some nomination considerations are: exhibiting extraordinary leadership qualities, displaying noteworthy innovation and creativity, reducing costs significantly, and making outstanding quality improvements.

Nomination deadline for the 1981 award is Dec. 11. If you have any questions concerning the award or nomination procedures, call Jack Farnan at KM 2256.

Pre-Retirement Seminars Begin Nov. 17 & 18

Pre-retirement planning seminars are scheduled to start Nov. 17 and 18. A few openings remain for hourly employees in the Wednesday evening sessions; reservations can be made by calling KM 2267. Spouses are encouraged to attend. Participants should meet in the lobby of building 2, Kearny Mesa Plant, at 5:30 p.m. on the first night. Employees must wear their badges.

Procurement On-Line (POL) System Installed

After a two-week delay for final adjustments, POL is in place today, Nov. 9. Material Dept. coordinators ask that during the first 45 to 60 days, users continue with the existing Commitment Control and PARTS systems while limiting use of POL as much as possible during this settling-in period. If problems occur with the new system, call the POL hotline LF 8252.

Who Owns That?

Did you know that, in most cases, when a purchase order is written against a government contract work order, the purchased item becomes *government owned* when received at Convair, or when issued from a stockroom? To be on the safe side, when working on

KOALA-T KORNER

The Quality Assurance department inspects virtually every product manufactured by Convair, usually at several stages during the process. Yet, the act of inspection adds no value to the part and does not improve the quality. The point is that you, the doer, build the quality in right from the start. To achieve high quality standards, we must have quality designs, quality planning, quality tooling, quality fabrication, and quality assembly.



Whatever your job, take pride and build the quality in.

government contracts, consider all property items as government owned when they arrive at Convair.

If you have any doubts about ownership, or how to handle property items, contact Property Administration at KM 6001.

NMACC Sponsors 'She Loves Me' at Lyric Dinner Theatre

Spend a delightful evening of dinner and theater as you watch "She Loves Me" (by the writers of "Fiddler on the Roof" and "Cabaret") at the Lyric Dinner Theatre in La Mesa. Special discount tickets of \$15 per person are available for the Friday, Dec. 11 performance. Make reservations by Nov. 20 with Cissy at KM 6361.

From the CRA

CRA Salesbooth Extends Hours for Holiday Season. Starting immediately for the convenience of General Dynamics employees, dependents, and retirees, the KM CRA salesbooth will be open Monday through Friday (until further notice) from 9 a.m. to 1 p.m. and 2 to 6 p.m..

Yugoslavian Hams Have Arrived. The 11-pound Yugoslavian hams are now on sale for \$26.50, *only* at the KM salesbooth.

Free Introductory Scuba Lessons. Lessons will be held on Monday, Nov. 9, at 4:30 p.m. in the CRA clubhouse. Bring your swimsuit. Call Rich, KM 3388 for details.

Noon Movie — 'Oil Over the Andes'

Filmed over an eight-year period, this movie is a colorful and dramatic presentation featuring the discovery of vast petroleum reserves in the trackless jungles of eastern Peru. It's the story of the daring pipeline crews who overcame the hazards of both Amazon rain forests and lofty mountain ranges to bring this precious energy source to the United States and world markets.

At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Our apologies to Keith Bennett (Dept. 756-0) for misspelling his name in the Oct. 26 issue of the Bluesheet.

Employment

For the week ending November 6, employment was 8,130.

CONVAIR Weekly Log

November 16, 1981

Published by the Convair Division of General Dynamics

OPEN HOUSE THIS SATURDAY

Bring Your Family and Friends for a Day to Remember
9 a.m. to 2:30 p.m.

This Saturday, November 21, from 9 a.m. to 2:30 p.m., Convair Division will open its doors at all three plants — Kearny Mesa, Lindbergh Field, and Plant 19. You are invited to bring your spouse, your children, relatives, and friends who are always asking "What is it that you do down there at the plant?" Serving as tour guides, members of the NMA Convair Chapter will conduct groups of visitors along designated routes in each plant. Stations along the routes will be manned by experts from the various departments who will explain operations and products manufactured in their area.

Entrance to each plant will be: at Kearny Mesa, a special gate just west of the cafeteria building; at Lindbergh Field, gate 11 on the airfield side of the plant; at Plant 19, the main gate on Pacific Highway.

Wear your badge and you will be able to take your family to your work area (unless it is restricted) if it is not on a tour route. No one will be allowed off the tour route unless accompanied by an employee with a badge. Cameras will not be permitted in the plants. As you and your family enter a facility, you will receive: a brochure telling about the wide range of General Dynamics products, tour maps that identify points of interest, and souvenir coins.

In the Kearny Mesa cafeteria, you will see movies of General Dynamics products, then guides will lead you to the fire station for a look at the gleaming fire trucks. From there you will stroll through manufacturing, cruise missile, Atlas/Centaur, computer, advanced technology, composite structures, and other areas.

After you and yours have completed the tour, you are invited to picnic in Missile Park. CRA will operate the

carousel, mini-train, snack bar, and other attractions throughout the day.

At the Lindbergh Field plant, a cruise missile display, originally exhibited at the Paris Air Show, will greet visitors as they enter. A tour of the Boeing 767 engine strut production line follows. Next, through the machine shops, past the fire station, and on to see assembly areas for the DC-10 and KC-10 fuselage sections, DC-10 door panels, and other areas of interest.

Plant 19 visitors will be overwhelmed by huge machines, many only recently installed to compete in tomorrow's technology. You will also see Atlas/Centaur tank manufacturing and the Space Shuttle Orbiter mid-fuselage assembly area.

At each Convair plant, refreshments will be served at a rest stop on the tour route. Designated restrooms will also be provided. For access to free parking areas at all facilities, consult your map.

It is going to be a great day — a real treat for your family and friends.

Safety Reminders:

- Wear comfortable, flat-heeled walking shoes.
- All guests without an escort must stay on designated routes.
- Do not enter eye-hazardous areas when machining is in operation.
- Keep the youngsters in tow — be responsible for their surveillance.
- All employees with badges escorting persons outside designated routes must supervise them (especially the younger ones) for their own safety.



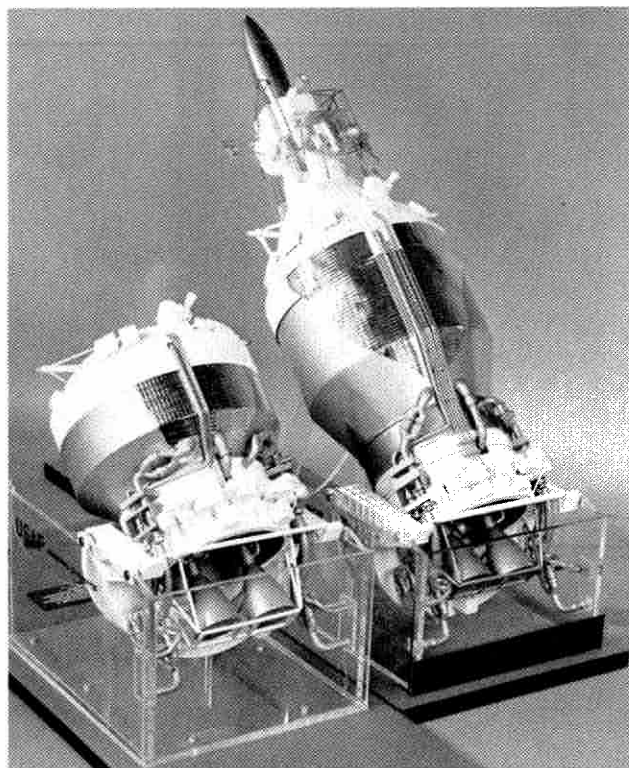
GD Pres. Boileau to Speak at NMA Meeting Nov. 17

General Dynamics President Oliver C. Boileau will be the featured speaker at tomorrow's NMA Convair Chapter's Cruise Missile Night. Sponsored by the Cruise Missiles Program Office, with Bill Dietz as executive host, the meeting should be a super one. A large turnout is expected, and members and spouses will be very interested to see and hear the president of our corporation in his first appearance before our chapter. Mr. Boileau's presentation will include film highlights of the cruise missile target hit flight, F-16 aircraft, and the Trident sea trials.

To be held at the Holiday Inn at the Embarcadero on Tuesday evening, Nov. 17, the event begins with a social hour at 5 p.m., dinner at 6:30. The scholarship drawing features a surprise grand prize, plus other great prizes too numerous to mention. Tickets for members and

spouses are only \$5.50 each. Nonmembers may purchase tickets for \$7 on an as-available-only basis.

Mr. Boileau joined General Dynamics in January 1980. Formerly he was a vice president of the Boeing Company and served as president of the Boeing Aerospace Company. He is a senior consultant to the Defense Science Board, a member of the National Academy of Engineering, and a fellow of the American Institute of Aeronautics and Astronautics. Mr. Boileau is also a member of the Navy League, the Air Force Association, and the American Defense Preparedness Association.



Model Shop, Dept. 065-0, built these striking 1/20th scale Shuttle/Centaur models: Centaur G (DoD version) on the left, and Centaur F (NASA version) that includes the Galileo payload.

Shuttle/Centaur Program Recommended to Congress

A joint NASA and DoD study on Space Shuttle Upper-Stage alternatives was recently completed and reported to the Congress. The upper-stage evaluation was requested by Congress after NASA's decision early this year to develop the Centaur in lieu of Boeing's Inertial Upper Stage (IUS) for the support of planetary exploration programs. Some of the pertinent conclusions reported were:

"The Centaur is the only vehicle capable of meeting near-term NASA planetary requirements..."

The study recommended: *"In order to satisfy the national mission requirements of both DoD and NASA, the Air Force should continue development and production of the IUS and NASA should develop the Centaur."*

At present, the development and production of the

KOALA-T KORNER

Authorized Changes . . .

Someone always wants to change things and that's good — but scribbled notes, marks, or other unauthorized changes are not.



- *Floor-level production planning can be changed by a liaison planner by using a planning stamp.*
- *Permanent production planning changes are obtained by initiating a PEAR.*
- *Changes to engineering drawings are made by ECN or other authorized engineering document.*

When we make changes, let's follow the rules.

Centaur F system is in the NASA budget for the next three years. Our Centaur F contractual funding has been on an increasing slope, and we are expecting authorization from NASA in November for long-lead production. The program provides for two Centaur vehicles and all required airborne, ground, and special test equipment. The first vehicle will be for the Galileo Mission in April 1985. The second vehicle is planned for the International Solar Polar Mission (ISPM) in May 1986.

Our Centaur G and F versions offer two to three times greater payload performance than the competing IUS. This is the prime reason for both NASA and Air Force support of Centaur integration into the Shuttle.

Industrial Relations Hosts Dinner-Dance at Hotel del Coronado Dec. 5

Beautiful Hotel del Coronado is the site of this year's Christmas Dinner Dance being sponsored by Convair's Industrial Relations Department. Augie Daddi will serve as executive host. The festivities are scheduled to begin at 6 p.m. on Saturday, Dec. 5, and will include no-host cocktails, dinner, and dancing to the popular Bill Green's orchestra. Tickets are \$35 per couple for members and \$45 for nonmembers. The parking fee is \$5. Limited parking near the hotel is also available. Contact your NMA Convair Chapter representative to reserve your tickets early. Watch for flyers with further details.

GSDHP, KFHP, SFHP — What Do They Mean?

These are the acronyms for the medical plan options San Diego-based employees may elect during the current open enrollment period. The plans available are:

GSDHP	Greater San Diego Health Plan
KFHP	Kaiser Foundation Health Plan
SFHP	General Dynamics Self-Funded Health Plan

The deadline to change plans is November 27 for coverage effective January 1, 1982. Information and enrollment forms are available in the Kearny Mesa and Lindbergh Field Employee Benefits offices.

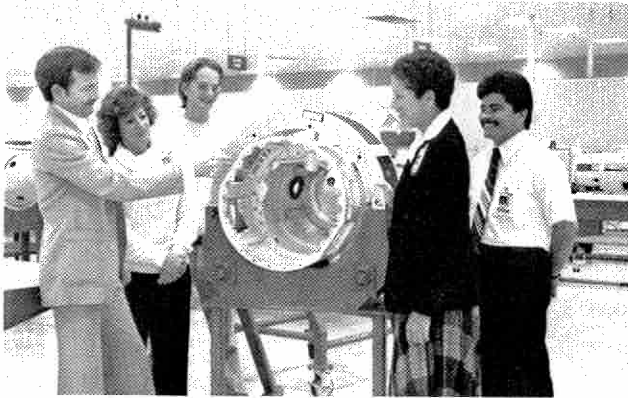
Employment

For the week ending November 6, employment was 8,130.

CONVAIR Weekly Log

November 23, 1981

Published by the Convair Division of General Dynamics



Pleased with the new tooling aid in Cruise Missile Final Assembly, are, from the left, Rodger Clapp (Dept. 038-0), Sue Smith (Dept. 422-0), Brian O'Hea (Dept. 465-0), Jackie Hatch (Dept. 241-2), and Ray Herrera (Dept. 465-0).

New Manufacturing Aid for Cruise Missile Final Assembly

Cruise Missile Final Assembly (Dept. 038), in building 5 at Kearny Mesa, has a new manufacturing aid for the tailcone assembly. It is the result of improvement studies by the Manufacturing Engineering department and suggestions received from final assembly personnel. The tooling shown rotates the tailcone assembly 360 degrees for accessibility; further modifications will offer height adjustments as well.

Industrial Relations Hosts Dinner Dance at Hotel del Coronado Dec. 5

Beautiful Hotel del Coronado is the site of this year's Christmas Dinner Dance being sponsored by Convair's Industrial Relations Department. Augie Daddi will serve as executive host. The festivities are scheduled to begin at 6 p.m. on Saturday, Dec. 5, and will include no-host cocktails, dinner, and dancing to the popular Bill Green's orchestra. Tickets are \$35 per couple for members and \$45 for nonmembers. The parking fee is \$5. Limited parking near the hotel is also available. Contact your NMA Convair Chapter representative for tickets.

Thank You, Blood Donors, for Sharing

Because Convair employees "shared themselves" during the recent in-plant blood drive, the San Diego Blood Bank now has 517 additional units of blood. Three hundred units are required daily to supply the county's needs, and generous Convair donors helped meet that need.

Remember, if you or an eligible dependent receive blood from the blood bank, bring or send your billing to Employee Benefits (MZ 50-1311). Credits will be transferred to your account from the Convair Blood Reserve Fund, thereby reducing or eliminating processing fees.

Reminders and Handy Reference Information

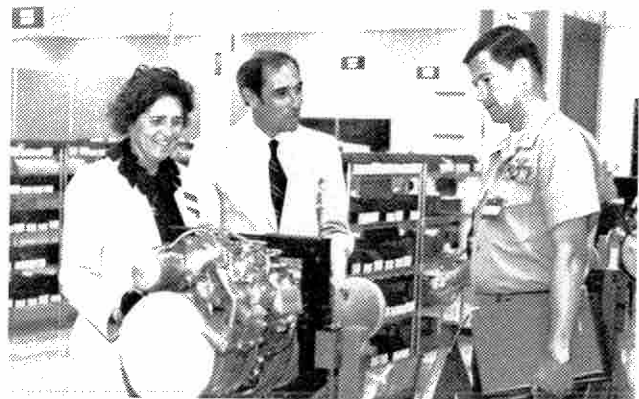
It may help you to be familiar with the following:

- Your work location: building and column numbers
- Equipment identification: 6-digit number stamped on equipment (needed when reporting breakdown)
- The numbers to call for the following services:

WHAT	WHERE		
	LF	AF19	KM
Maintenance repair and energy waste	8575	5675	1130
Office equipment repair	8575	8575	8575
Transportation service	8621	8109	1515
Measurement control	8721	8721	1100
Tool control	8122	8122	8122
Fire Dept — emergency	6555	6555	1555
	6556	6556	
Fire Dept — nonemergency	8244	8244	1811
	8245	8245	1510
	8858	8858	
Telephone repair	1026	1026	1026

Load Shedding Pays Off

Our total utilities bill for October was \$905,915. Electricity cost \$746,180, natural gas \$123,184, and water \$36,551. When the heat is on, keep doors and windows closed and set the thermostats no higher than 65°F.



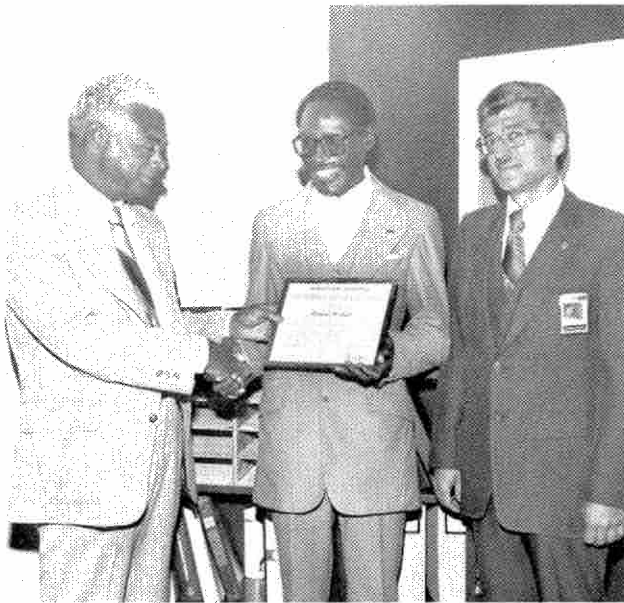
John DeBlanc, manager of Program Development Services, recently guided visiting congresswoman Beverly Byron (D-Maryland) and Lt. Col. Richard Thompson through the Kearny Mesa plant. Here, they view a cruise missile engine in the final assembly area. Representative Byron is a member of the House Armed Services Committee. Col. Thompson is from the DoD Office of Legislative Affairs.

El Cajon Vanpool to KM Seeks Driver & Rider

An existing vanpool is looking for a relief driver for the 7:30 a.m.-4:15 p.m. shift. Cal-Trans will aid in obtaining a second-class license. The vanpool serves East El Cajon, Parkway Plaza, and Grossmont Center. Those interested in riding or driving may contact Carl Wannamaker at KM 1089.

The week of Thanksgiving is when we give thanks for the many blessings in our lives. It is an appropriate time, as well, to say "thank you" to our fellow employees. In getting the job done and meeting deadlines, we may forget how much everyone appreciates thanks for efforts made and help given. Let me take this opportunity, then, to thank each of you for your contributions to Convair. I also want to extend best wishes to you for a good holiday warmed by the presence of family and friends.

Jo Buchanan



Manufacturing Engineering Recognizes Productivity

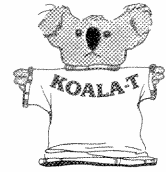
For the month of October, Renard Reid was chosen as the Manufacturing Engineering employee of the month. Reid is pictured above with Henry Hyman, director of Manufacturing Engineering, and Mike Hersh, manager, Engineering and Tool Design/Tool Manufacturing. Reid received a certificate in recognition of his efforts that reduced the tooling backlog in the Dead End Area by 85 percent.

Performances Extended for 'Something's Afoot'

If you like a murder mystery, plus comedy and music, you'll love the General Dynamics Performing Arts Company's production of "Something's Afoot," a spoof based on Agatha Christie's *Ten Little Indians*. Maggie Bowman directs a talented cast that includes many General Dynamics employees. Audience reaction to the musical comedy murder mystery has been so enthusiastic that the play is being extended two more weekends. The next performances will be on Friday and Saturday evenings at 8 on Nov. 27-28 and Dec. 4, 11, and 12, with a Sunday matinee on Dec. 13 at 2 p.m. General Dynamics employees and their dependents get a \$1 discount off the general admission prices of \$5 for adults, \$3 for senior citizens, and \$2 for children under 13. Please bring GD identification for discounts. Group rates are available. Call KM 1111 for information.

KOALA-T KORNER

Why are Whirlpool, Haines, and Ford stressing quality so highly in their current TV advertising? Maybe its because they have discovered again that to remain competitive in the marketplace you must produce a better product. Regardless of whether you make home appliances, clothing, or aerospace vehicles, the successful companies of the world deliver a quality product on schedule and at a reasonable cost.



Save On 1982 Federal and State Income Tax Guides

This year, the federal and state income tax guides retail for \$10 each. Through Convair, you can buy the federal guide for \$7 and the state guide for \$7.50. Orders must be received by Nov. 30. The guides will be sent to you as soon as they arrive, late this year or in early 1982. For additional information, contact W. McColley, Financial Accounting, mail zone CC-5120, KM 2986.

SAFETY SPOTLIGHT



"Hey-did you know this is National Fire-Prevention Week?"

Fire-prevention requires your strict attention all year long. Observe safety rules-use caution-know emergency procedures.

SAFETY — BEING VIGILANT!

Next Noon Movie Dec. 2-3

Convair theaters will be closed this week because of Thanksgiving. Movie showing will resume Dec. 2-3.

Employment

For the week ending November 15, employment was 8,175.

CONVAIR Weekly Log

November 30, 1981

Published by the Convair Division of General Dynamics

I'm pleased to report that over 13,000 people visited our Kearny Mesa, Lindbergh Field, and Plant 19 facilities for our November 21 open house. From reports received, many people agree with me that it was an outstanding event. It was rewarding to see the pride and enthusiasm that employees showed in pointing out our products and facilities to their families and friends. Crowds lined up early and a steady flow of Convair employees, families, and friends came through the entrance gates at KM, LF, and Plant 19 for our open house.

My thanks to all the members of the open house committee, the National Management Association Convair chapter, CRA, and all the employees who joined together to man the displays and carry out all the other details necessary to make this an impressive and successful open house.

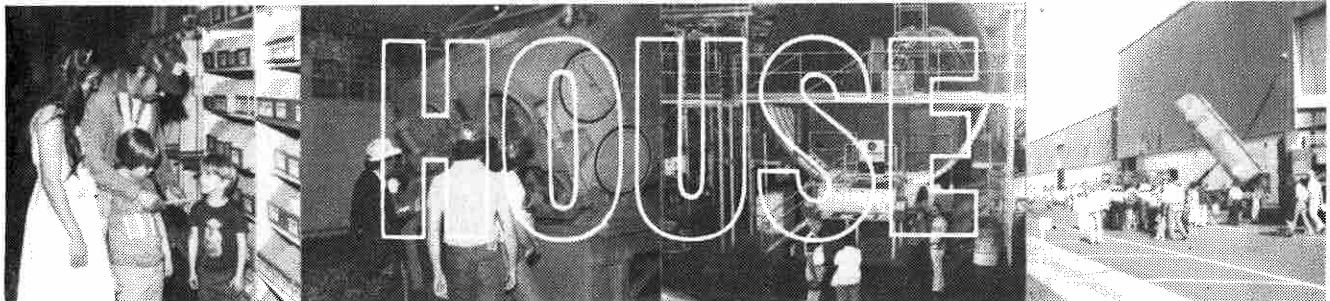
Jo Buchanan

Over 13,000 Attend Open House

By day's end 5,300 people had visited Kearny Mesa, over 5,000 visited Lindbergh Field while 3,000 visited Plant 19. They saw an impressive display of Convair products, facilities, and people. Many people had worked hard to get displays and equipment ready, to make sure the tour routes were clear and well-marked, and to see to all the other details necessary to accommodate the expected crowds. Volunteers from the NMA Convair chapter, CRA, and from the various departments acted as tour guides, handed out tour maps, free caps, explanations and directions, and served refreshments along the way.

Thanks are very much in order to all those who contributed to making this a terrific day. And also to those who brought their families, friends, and neighbors to foster a better understanding of Convair programs, expertise, and people.

OPEN HOUSE



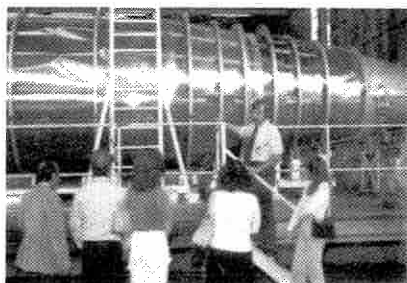
Crowds lined up early. Here, the first of 5,000 people begin their tour of our KM facility.



Russ Stahlak explains how his Dept. 050, Avionics Mfg and Test, builds and installs a mission control module into a cruise missile.



Norm Pearl, Manager of Industrial Engineering, points out details on the space shuttle cargo bay.



Tour guide Ken Biccum of Industrial Relations discusses the fine points of an Atlas missile assembly at Plant 19.



Julian Jaeger, Supervisor Machine Shop, Dept. 015, acts as host in Plant 19.



Our superconducting magnet systems spark a great deal of interest in the KM lobby.

FROM THE CRA

Yugoslavian Hams Still Available. The 11-pound Yugoslavian hams are still on sale for \$26.50, *only* at the KM salesbooth. For the convenience of General Dynamics employees, dependents, and retirees, the KM CRA salesbooth will be open Monday through Friday (until further notice) from 9 a.m. to 1 p.m. and 2 to 6 p.m.

Free Introductory Rock a'Robics Class. A free introductory Rock a'Robics class will be held on Monday, Nov. 30 at 4:30 p.m. and again on Tuesday, Dec. 1 at 9:30 a.m., 4:30, and 5:30 p.m. A new fun-filled five-week session will begin on Dec. 2 and continue through mid January with classes meeting every Monday and Wednesday at 4:30 p.m. and Tuesdays and Thursdays at 9:30 a.m. and 4:30 and 5:30 .m. Call CRA at KM 1111 for more information.

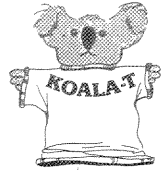
Special Prices for Del Mar Harness Racing. Del Mar Harness Racing Association is offering General Dynamics employees and their families special seating and reduced admission prices for Saturday, Dec. 12 harness races. Clubhouse admission is \$2 (normally \$4), and Turf Club admission is \$4 (normally \$7.50). Tickets are available through CRA. Call KM 1111 for more information.

KOALA-T KORNER

You make the difference . . .

And that difference means avoiding scrap, rework, and repairs because you use the right tools, procedures, planning, and instructions. If you're having trouble getting off to a good start — stop! Contact your supervisor.

You make the difference.



Noon Movie — Why Not Hungary? A film that transports the viewer to this quaint country for a look at the ancient sites and an understanding of some of the old customs.

At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, there will be no movie because the projectionist is on vacation.

Employment

For the week ending Nov. 27, 1981, employment was 8,173.

Industrial Relations Hosts Dinner Dance at Hotel Del Dec. 5

Time is running out to buy your tickets for this year's Christmas Dinner Dance being sponsored by Convair's Industrial Relations Department. Augie Daddi will serve as executive host. The festivities are scheduled to begin at 6 p.m. Saturday, Dec. 5, and will include no-host cocktails, dinner, dancing, and a raffle for fabulous prizes. Two carafes of wine will also be provided for each table, compliments of NMA Convair Chapter. Tickets are \$35 per couple for members and \$45 for nonmembers. Plenty of street parking near the hotel is available. Only five days remain, so buy your tickets now. If you wish to reserve a table, call Jane Keaton, LF 8186.

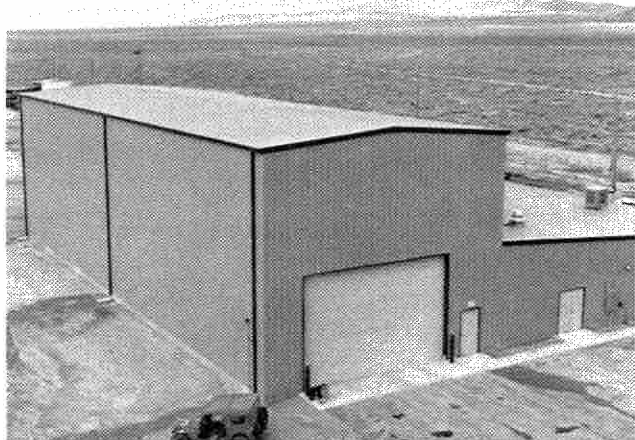
See you Saturday.



CONVAIR Weekly Log

December 7, 1981

Published by the Convair Division of General Dynamics



Pictured above is the new GLCM Maintenance Facility at Dugway, Utah.

GLCM Maintenance Facility Dedicated

Convair was well represented at the dedication of the recently completed GLCM Maintenance Facility at the Dugway Proving Grounds in Utah. Jerry Butsko, GLCM Program Director, and Bill Phillipp, Director of Test & Evaluation, headed a team consisting of Kent Parra, GLCM Marketing; Tom Johnson, GLCM Test Team Leader; Truett Shipley, GLCM Test & Evaluation Product Manager; and Jack Baner, Operations Manager at the Utah Test & Training Range.

The new facility will be the focal point for all Convair and Air Force test operations.

The new building has a high-bay area which has the capacity to contain either four complete transporter erector-launchers (TELs) or four launch control centers. In addition, it is large enough to accommodate the loading of all-up rounds into the TEL and high enough for the TEL to be erected to full launch position. The low-bay area contains administrative and engineering offices for both government and Convair personnel. In addition, the low-bay area houses a large storeroom for Convair spares and test support hardware.

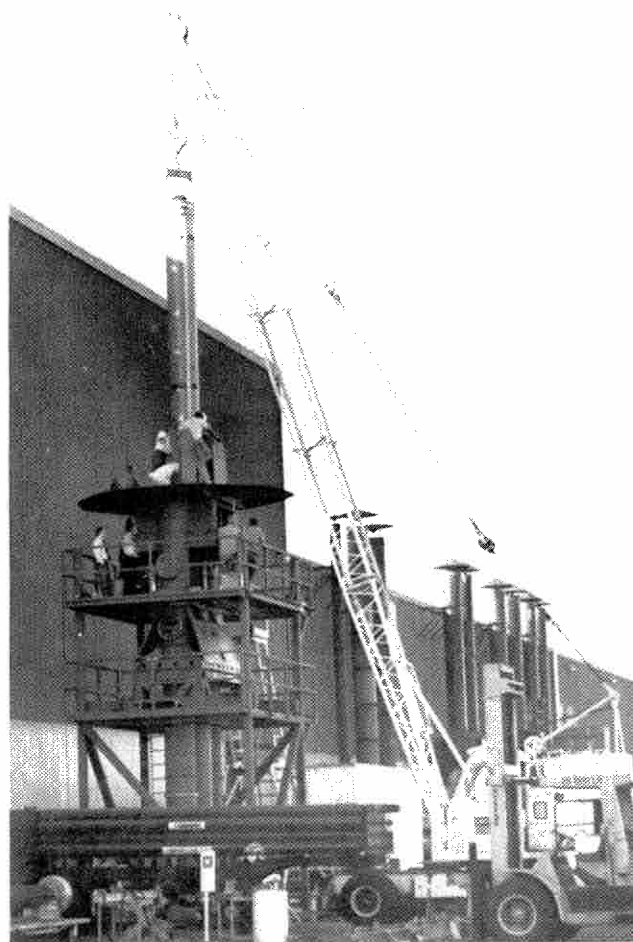


Manufacturing Technology Honored for Outstanding Performance.

Manufacturing Technology Leads in Approved Cost Reduction Proposals

Manufacturing Technology (Dept. 470-0) personnel attended a hamburger fry at the CRA shelter, November 6, in recognition of their outstanding performance in submitting approved Cost Reduction Proposals (CRPs).

Manufacturing Technology led all operation departments in approved CRPs in 1980 with \$13.8 million, and has surpassed that record this year with over \$21 million approved to date, which is over half the operation departments' total. Congratulations Manufacturing Technology for a job well done.



Vertical Launch System will permit Tomahawk cruise missile to be launched vertically from Navy SSN 688-class subs.

Vertical Launch System Nears Completion

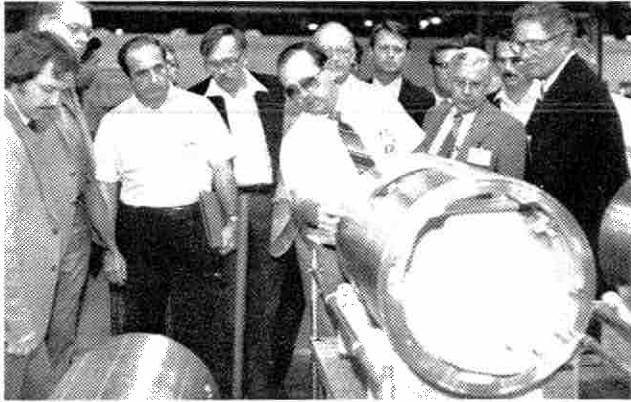
The Vertical Launch System (VLS) shown is the product of several of the Operations Departments here at Convair. It is nearing completion and will be shipped to San Clemente Island later this year, where it will undergo a series of underwater launch tests.

These tests will be in support of Tomahawk's integration into the Navy's SSN 688 class submarine, Vertical Launch System. The major components of the system, were purchased from outside vendors, then shipped to Convair where the final machining, welding, and assembly tasks were accomplished. Involved departments were:

Department 835, Material Procurement; Department

FLIP

756, Engineering Test Support Operations; Department 733, Paint Shop and Processing; Department 427, Research and Development Programs; Department 405, Tool Engineering and Tool Manufacturing; Department 340, Quality Control; Department 242, Energy Systems and Space Programs Scheduling; Department 220, Production Control; Plant Facilities, Department 250; and Department 031, Low Rate Production Facility.



Mr. Gordon Lundquist, General Supervisor Subassembly-Weld/Processing, explains how a weld is made to cruise missile section to visitors from the Department of Defense.

Manufacturing Engineering Hosts DoD Visitors

The Department of Defense (DoD) held its thirteenth annual manufacturing technology conference in San Diego last week. As part of the agenda, members were invited to tour Convair facilities including the mid-fuselage and TEL assembly areas at Plant 19. Dr. Henry Hyman, Director of Manufacturing Engineering, hosted the visit.

Convair Inventors Receive Patents

Patents were recently granted to three Convair inventors by the U.S. Patent Office. Ed Hujsak (Dept. 611-0) received Patent 4,298,178 for a roving satellite maintenance vehicle capable of moving among space satellites in geosynchronous orbits to replace hardware modules as necessary for repair and upgrading. Bob Peller (Dept. 602-0) and Jack Dyer (Dept. 952-0) received Patent 4,296,839 for designing a structurally damped bolt useful in supporting structures in high-vibration areas.

Enroll Next Week for Convair In-plant Courses

Register next week for the spring semester in-plant courses offered by Educational Services in cooperation with the San Diego Community Colleges.

At Lindbergh Field, register in classroom 2-1, Building 2, on Monday, December 14, from 2 to 5 p.m. At Kearny Mesa, register in the lobby, Building 2, on Tuesday December 15, from 2 to 5 p.m. Classes start the week of February 1, 1982.

Schedules of classes are available at Educational Services offices at Kearny Mesa and Lindbergh Field. For additional information, call KM 2236 or LF 8564.

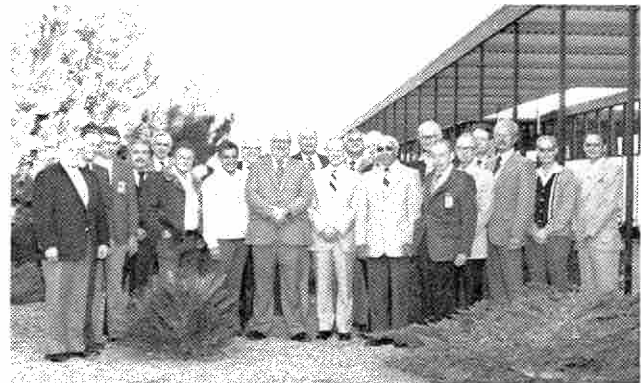
Medical Plan Changes Effective January First

Those who made changes in their medical plan during November are reminded that the changes do not become effective until January 1, 1982. Employees who change to Greater San Diego Health Plan or Kaiser will receive identification cards in the near future.

KOALA-T KORNER

Each year Convair spends thousands of dollars to purchase, maintain, and repair precision dimensional measuring equipment (DME). Unfortunately, many of these tools are lost, damaged, or allowed to rust or corrode. The nonavailability of needed DME can contribute to poor quality and unnecessary production delays.

Take care of company-owned equipment as though it was your own.



Pictured from left to right are Arthur Wrightson, Jr., 35 years; Anton Brunner, 35 years; Joe Maloney, 40 years; Benigno Flores, 40 years; Russ Babcock, Ed Rinks, 40 years; Sam Contasti, 35 years; James Humphreys, 35 years; Dr. Buchanan; Charles Rezek, 40 years; Reed Gattshall, 40 years; Dan DaPra; Jack Hammer, 40 years; Arnold Chavez, 35 years; Bill Phillipps, 40 years; George Stacy, Jr., 35 years; Glenn Sanders, 35 years; Harold McCaslin, representing Jay Hawley; Glenn Smith, 35 years; Paul Standley, 40 years; and F.J. "Matty" Mathis, 35 years.

Service Award Breakfast

Recognizing employees with many years of dedicated, loyal service, Dr. Buchanan hosted a service award breakfast Friday morning, November 20, in the Kearny Mesa executive dining room. Honored were Convair employees who earned 25- and 40-year service awards during November and December this year. (Service awards are earned for service longevity at five-year intervals.)

Each long-timer received a service award presented by Dr. Buchanan and the employee's division staff member. A color photograph was taken of each presentation and will be given to the awardee as a memento of the occasion. Special thanks to these employees for the experience and knowledge they have contributed to the company's achievement over the years.

Is Your Address Correct On Your Paycheck?

If your address is incorrect, pink change-of-address cards are available at all time clocks and Employee Benefits at KM and LF. Employee Benefits reminds everyone that home mailings in the near future require that addresses be correct. Incorrect addresses cause unnecessary delays, additional postage charges, and nonreceipt of important information.

Employment

For the week ending Nov. 22, employment was 8,173.

CONVAIR Weekly Log

December 14, 1981

Published by the Convair Division of General Dynamics



Ben Wier Appointed to Lead Convair's Productivity Effort

Ben Wier, former Atlas Program Director, has been appointed director of Productivity for the Convair Division. He began his career with Convair as a flight test engineer in the Atlas program and advanced through various technical and management positions. He will now be directing Convair's efforts in General Dynamics' corporate-wide productivity improvement effort.

The initial thrust of Convair's effort is to bring productivity into focus by encouraging departments to examine their objectives and set measurable productivity goals. By improving our facilities and encouraging people to work smarter, we should make better quality products, with better utilization of our total resources.

Energy Systems Wins Advanced Reactor Study

Energy Systems, Dept. 107-0, as part of TRW's prime contractor team, has won the Mirror Advanced Reactor Study from Lawrence Livermore National Laboratory (LLNL). This study will produce an integrated design of a tandem mirror reactor for commercial electrical power with synthetic fuel as an alternative product. The reactor will burn deuterium and tritium bred from the neutron bombardment of lithium. General Dynamics' role, as subcontractor to TRW, is in designing the systems superconducting magnets, the power blankets, the reactor structure, the neutron shield, and the reactor liquid helium cryogenics. The contract is a significant win on our first try at expanding our fusion energy

business base beyond magnets. The program manager is Dr. Jerry Parmer, Dept. 107-0, and the chief engineer is Robert Baldi, Dept. 681-0. Congratulations.

767 Strut Deliveries

Pratt & Whitney production shipset number 10 was delivered to Boeing on schedule. A total of 19 shipsets have been delivered to date, including three General Electric production shipsets and six equivalent shipsets of P&W and GE test units.

POL Training Will be Repeated December 15 & 16

The Procurement On-Line (POL) system has been in operation one month. Four training sessions will now be given for the benefit of those who missed the October sessions.

Place	Date	Time
Kearny Mesa		
Mockup conference room C, bldg. 5	Dec. 15	9-11 a.m.
	Dec. 16	1:30-3:30 p.m.
Lindbergh Field		
Engineering auditorium 2nd floor, bldg. 5	Dec. 15	1:30-3:30 p.m.
	Dec. 16	9-11 a.m.

People may select any of the four sessions. If you have questions about the POL training sessions, call Jim Cleghorn, LF 8270.



Jules Hertz (left), Manager of Materials and Processes Engineering, shows Brig. Gen. Joseph H. Connolly through the cruise missile final assembly area during his visit to Convair last week. Also shown is Don Gillespie, director of Marketing for cruise missiles.

Gen. Connolly Briefed on Manufacturing Technology and Productivity Improvement Programs

Brig. Gen. Joseph H. Connolly, director of Contracting and Manufacturing Policy, USAF Headquarters, visited our Kearny Mesa facility last week for briefings on our manufacturing technology and productivity improvement programs. Henry Hyman, director of Manufacturing Engineering, hosted the general's visit.

FLIP

Blueprint Reading and Mathematics Classes for 2nd and 3rd Shift Employees

Special Community College classes for second and third shift employees have been established at LF in blueprint reading and related technical mathematics. Blueprint reading will be each Tuesday, starting Feb. 2, and mathematics will be each Thursday, starting Feb. 4. Each class, for three units of credit, will be from noon to 3 p.m., and will run 18 weeks. See next article for registration information.

Enroll Today or Tomorrow for In-plant Classes

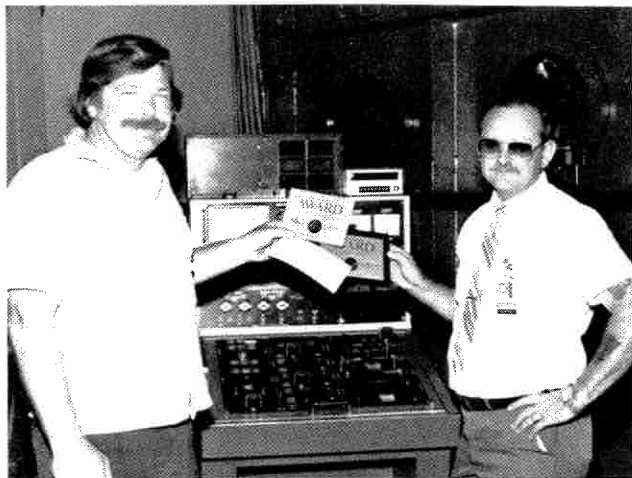
Registration will be this week for the spring semester in-plant classes scheduled to start Feb. 1, 1982. At Lindbergh Field, registration will be in classroom 2-1 building 2, today (Dec. 14) from 2 to 5 p.m. Tomorrow (Dec. 15) at Kearny Mesa registration will be in the lobby, building 2, from 2 to 5 p.m. You may enroll for any of the courses available at either location. Schedules of classes and additional information are available at Educational Services offices at Lindbergh Field, building 16, LF 8564 and at KM building 17, KM 2236.

New Payroll Deductions Begin Jan. 8, 1982

The payroll deduction for California State Disability Insurance (DI) during 1982 will change from 0.6% of the first \$14,900 of annual income (\$89.40 maximum) to 0.8% of the first \$17,000 (\$136.00 maximum) per employee.

The payroll deduction for the Federal Insurance Contributions Act (FICA or Social Security tax) during 1982 increases from 6.65% of the first \$29,700 of annual income (\$1,975.05 maximum) to 6.70% of the first \$32,400 (\$2,170.80 maximum) per employee. The Company matches every dollar that you pay in Social Security tax.

These deductions will commence in the first paychecks distributed in the new year, i.e., paychecks for both salaried and hourly employees to be distributed Friday, Jan. 8, 1982.



Cruise Missile Welder Scores Again

Jim Maxwell, senior electron beam welder in Dept. 032, is shown above receiving awards totaling \$650 from his general supervisor, Gordie Lundquist. The largest of his two awards was for energy savings associated with Convair's electron beam welding system at Kearny Mesa.

KOALA-T KORNER

Manufacturing planning is an important record in documenting Convair's hardware compliance. If you do not understand clearly what the planning requires, discuss it with your supervisor.



Complete and legible information is critical in handling manufacturing planning paper.

They Retired in November

Convair extends thanks, best wishes, and a happy retirement to each of these employees who retired last month.

Name	Department	Years of Service
Agostino Arcidiacono	Cruise Missile Systems	17
Elwood C. Cass	Machine Shop	28
Morris Howell	Assembly Inspection, AF 19	28
John A. Liegl	Proof Planning	40
Gilbert O. Roessler	Computing Sciences	2½
Sarah D. Wilshire	Machine Shop	27
John F. Young	Welded Subassembly	38

Special Safety Eyeglass Exam Dec. 1-Jan. 15

Group Vision Program is offering \$1 eyeglass examinations Dec. 1, 1981-Jan. 15, 1982, by appointment only. This is the regular, thorough eyeglass examination that includes glaucoma testing. If you or any member of your family needs proper eye care, now is the time; don't delay.

As of Dec. 1, 1981, the \$39 soft contact lens special increased to \$49 per pair.

Discounts at Computerland

The CRA Personal Computer Club and the Data Systems Division have arranged for a substantial discount on all computer systems, equipment, and program products at Computerland. This special program is available only to employees of General Dynamics and provides discounts of up to 25%. Call or visit the CRA Clubhouse for details (KM 1111).

Load Shedding Payoff

Our total utilities bill for Oct. was \$905,915. Electricity cost \$746,180, natural gas \$123,184, and water \$36,551. When the heat is on, keep doors and windows closed and set the thermostats no higher than 65°F.

Noon Movie "People"

A contemporary look at the men and women of the U.S. Army Corps of Engineers, military and civilian, performing a variety of jobs in the U.S. and overseas, in such countries as Germany and Saudi Arabia. This motion picture describes the wide range of Corps missions that support the Army and the nation, and portrays the spectrum of surprising jobs performed.

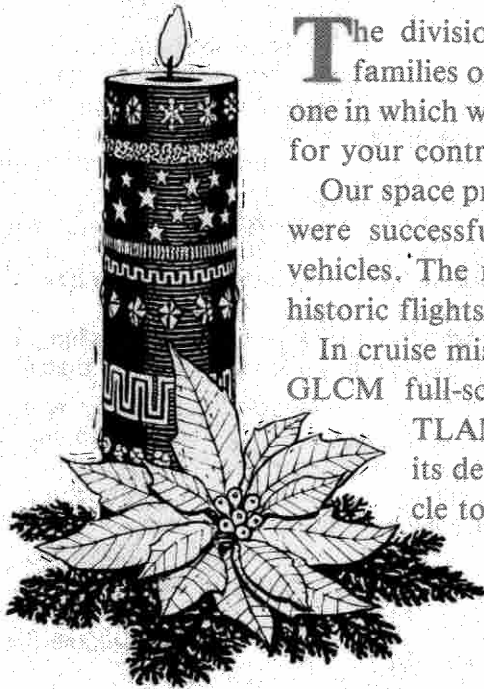
At Kearny Mesa, showings will be on Wednesday in classroom 3 of building 17 at 11 a.m. and noon. At Lindbergh Field, showings will be on Thursday in the building 5 auditorium at 11 a.m., noon, and 7:30 p.m.

Employment

For the week ending Dec. 6, employment was 8,205.

CONVAIR **Weekly Log** December 21, 1981

Published by the Convair Division of General Dynamics



The division staff joins me in extending to each of you and your families our best wishes for the holiday season. The past year has been one in which we can all take a great deal of pride, and we thank each of you for your contributions.

Our space program continued its outstanding success. All space launches were successful and the Air Force ordered five new Atlas H launch vehicles. The mid-fuselage section of the Space Shuttle was part of two historic flights, and Shuttle/Centaur continues to be in NASA plans.

In cruise missiles, we passed several key milestones, including initiating GLCM full-scale production, first Tomahawk night flight, and first TLAM and antiship target hits. MRASM moved steadily ahead in its development, and we delivered the first MGD flight test vehicle to the Air Force.

High-quality production continued on schedule for the DC-10 and KC-10. We delivered 22 fuselages, which brings our total fuselage production to 386. Due to the situation of the airline economy, we will be limiting our production of fuselages in 1982 to eight; however, we expect production to return to higher levels in the years ahead.

We delivered 18½ shipsets of engine struts for the Boeing 767 and we plan to deliver 45 more in 1982. This 400-shipset contract is a strong program, firm through 1986, with a high potential for follow-on.

Our energy program continues to grow. We delivered the first large superconducting magnet to TRW. In 1982, we will deliver the large coil magnet and three Elmo Bumpy Torus magnets to Oak Ridge National Laboratory, and we will complete fabrication of the world's largest superconducting magnet for Lawrence Livermore Laboratory. Convair now has 65 percent of the large superconducting magnet market.

We should all be proud of these accomplishments, for they were achieved through the dedication, talents, and hard work of each of you. As we enter the holiday season, let us deck the halls with a positive spirit that will reflect the outstanding accomplishments of the past year and look forward to further accomplishments and improvements in 1982.

John Buchanan



From left, Ron Thomas (Dept. 015), Leroy Snider (Dept. 015), Major Oscar Youngquist, Salvation Army, Trixie Miller (Dept. 015), George Roller (Dept. 015), and Don Tiedmond (Dept. 001).

Employees Contribute to Salvation Army Christmas Fund

Machine Shop (Dept. 015) employees, along with Sheet Metal (Dept. 001), and Processing (Dept. 002) employees, were very happy to present a check for \$1,555 to Major Oscar Youngquist, county coordinator for the Salvation Army. This money will be used to help families through the Adopt-a-Family Program this Christmas.

These employees merit special recognition for their true Christmas spirit.

Dr. Buchanan to Talk on 'State of Division' Jan. 26

Dr. Buchanan will deliver his annual "State of the Division" address at the NMA Convair Chapter monthly dinner meeting on January 26, 1982. Additional details will be released at a later time, but the location of the dinner will be the Olympus room of the Atlantis Restaurant on Mission Bay.

Team Effort Really Moving Out With DC-10

Things are really moving at Lindbergh Field — if you blink your eyes, you may miss something. The DC-10 assembly line has occupied most of buildings 2 and 3 and part of building 4 at Lindbergh Field. To make available valuable space for other division programs and enhance productivity, the main lines are all being consolidated into building 2. The consolidation is proceeding to a detailed plan and is ahead of schedule. The new lines will be in position by the end of February.

This is a major undertaking requiring a team effort. Keep up the good work.

Over 1,800 Employees Join Credit Union

Since October 19, over 1,800 Convair employees have taken advantage of the opportunity to become members of the Point Loma Federal Credit Union. To handle the initial membership rush and the many questions from employees during the early sign-up period, a Credit Union representative has been at our Lindbergh Field facility each Tuesday and Thursday for two hours. The Credit Union is discontinuing its on-site representative and will provide complete services at its main branch, starting January 4, 1982. Questions regarding the Credit

Union should be directed to their main branch, 226-1600. Credit Union membership material is available at the LF and KM Employee Benefits offices.

Quality Circle Leaders Attend Training Program

A two-day symposium for Quality Circle leaders was held November 11 and 12 at California Polytechnic University, Pomona. Attending the symposium were Don Tiedmond, Dept. 001, Sheet Metal; and Leroy Snider, Dept. 015, Machine Shop.

Tiedmond is the leader of the new Quality Circle in Dept. 001-21, First Cut area. There are ten members in the Thought Processors, which is the name the members have chosen for their new circle. They intend to identify, analyze, and solve some of the problems within their department. The first meeting of the Thought Processors was December 8.

Leroy Snider is the leader of the First Circle in Dept. 015-07, Profile Mill section. The First Circle has just completed a project that involved replacement of styluses for the profilers.

At the two-day meeting, Don and Leroy met with representatives from the following divisions: Pomona, Data Systems, Electric Boat, Fort Worth, Electronics, Stromberg-Carlson, and Camden. There was also a representative from the United States Navy, Quality Control, Corrective Action group. Among the items discussed were problem analysis, problem solving, and situational leadership.

Heat Will Be Off at LF Plant Dec. 26-30

There will be no steam for processing or heating at the Lindbergh Field Plant from 7 a.m., Saturday, December 26, through 12 p.m., Wednesday, December 30. All employees who are scheduled to work during this period should dress accordingly.

Avionics Manufacturing and Test, Aids Heart Attack Victim

Congratulations to Dept. 050, Avionics Manufacturing and Test, for their recent fast, efficient handling of an on-site heart attack victim. Supervisors and employees demonstrated a knowledge of emergency procedures that helped to save a fellow employee's life. Happily, the employee is now back on the job.

Is your department aware of emergency protocol? If not, please ask Central Medical to send a representative to visit with your department on proper emergency procedures.

The next issue of the Convair Weekly Log will appear January 11, 1982. Happy holidays to each of you, and may we all have a good new year.

Noon Movie

The next noon movies will be shown January 6 and 7, 1982. The noon movie crew wishes you all a very Merry Christmas and a Happy New Year.

Employment

For the week ending December 13, employment was 8,208.